

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG ELECTRIC LOGS ☒ X WATER SANDS LOCATION INSPECTED SUB. REPORT/abd.

DATE FILED JANUARY 5, 1996

LAND: FEE & PATENTED STATE LEASE NO. ML-38666

PUBLIC LEASE NO.

INDIAN

DRILLING APPROVED: FEBRUARY 14, 1996

SPUDDED IN: FEBRUARY 27, 1996

COMPLETED: 10-14-96 WDW PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH: 6510'

WELL ELEVATION: 5691' GR

DATE ABANDONED:

FIELD: UNDESIGNATED

UNIT: DRUNKARDS WASH

COUNTY: CARBON

WELL NO. UTAH D-3

API NO. 43-007-30290

LOCATION 1600 FSL FT. FROM (N) (S) LINE. 1126 FWL

FT. FROM (E) (W) LINE. NW SW

1/4 - 1/4 SEC. 18

TWP.

RGE.

SEC.

OPERATOR

TWP.

RGE.

SEC.

OPERATOR

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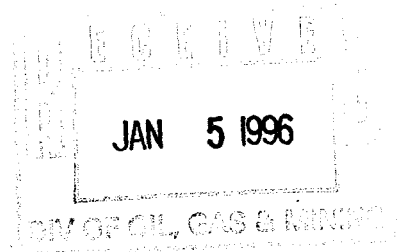
RIVER GAS CORPORATION

GEOLOGIC TOPS:

QUATERNARY	Star Point	Chinle	Molas
Alluvium	Wahweap	Shinarump	Manning Canyon
Lake beds	Masuk	Moenkopi	Mississippian
Pleistocene	Colorado	Sinbad	Humbug
Lake beds	Sego	PERMIAN	Brazer
TERTIARY	Buck Tongue	Kaibab	Pilot Shale
Pliocene	Castlegate	Coconino	Madison
Salt Lake	Mancos	Cutler	Leadville
Oligocene	Upper	Hoskinnini	Redwall
Norwood	Middle	DeChelly	DEVONIAN
Eocene	Lower	White Rim	Upper
Duchesne River	Emery	Organ Rock	Middle
Uinta	Blue Gate	Cedar Mesa	Lower
Bridger	Ferron	Halgaite Tongue	Ouray
Green River	Frontier	Phosphoria	Elbert
	Dakota	Park City	McCracken
	Burro Canyon	Rico (Goodridge)	Aneth
	Cedar Mountain	Supai	Simonson Dolomite
	Buckhorn	Wolfcamp	Sevy Dolomite
	JURASSIC	CARBON I FEROUS	North Point
Wasatch	Morrison	Pennsylvanian	SILURIAN
Stone Cabin	Salt Wash	Oquirrh	Laketown Dolomite
Colton	San Rafael Gr.	Weber	ORDOVICIAN
Flagstaff	Summerville	Morgan	Eureka Quartzite
North Horn	Bluff Sandstone	Hermosa	Pogonip Limestone
Almy	Curtis		CAMBRIAN
Paleocene	Entrada	Pardox	Lynch
Current Creek	Moab Tongue	Ismay	Bowman
North Horn	Carmel	Desert Creek	Tapeats
CRETACEOUS	Glen Canyon Gr.	Akah	Ophir
Montana	Navajo <i>Sandstone 5550-5918</i>	Barker Creek	Tintic
Mesaverde	Kayenta		PRE - CAMBRIAN
Price River	Wingate <i>Sandstone 6000-6050</i>	Cane Creek	
Blackhawk	TRIASSIC		

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

<h2 style="margin:0;">APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK</h2>			3. Lease Designation and Serial No. ML-38666	
			6. If Indian, Allottee or Tribe Name	
1a. Type of Work DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			7. Unit Agreement Name UTU67921x	
b. Type of Well Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other Water Disposal <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone <input type="checkbox"/>			8. Farm or Lease Name Utah	
2. Name of Operator River Gas Corporation			9. Well No. D-3	
3. Address of Operator 511 Energy center Boulevard Northport, Al. 35476			10. Field and Pool, or Wildcat Drunkards Wash	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1600' FSL, 1126' FWL Sec. 18, T15S, R10E At proposed prod. zone			11. 00, Sec., T., R., M., or Bk. and Survey or Area NW/SW Sec. 18, T15S, R10E	
14. Distance in miles and direction from nearest town or post office* Approx. 5 miles south-southwest of Price			12. County or Parrish Carbon	13. State Ut.
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 300'	16. No. of acres in lease 921.98	17. No. of acres assigned to this well N/A		
18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. 500'	19. Proposed depth 6300'	20. Rotary or cable tools rotary		
21. Elevations (Show whether DF, RT, GR, etc.) GR 5691'		22. Approx. date work will start* February, 1996		
23. PROPOSED CASING AND CEMENTING PROGRAM				
Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12 1/4"	9 5/8"	36#	500'	
8 1/2"	7"	26#	6300'	See Attachment 5



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

4. I hereby certify that this report is true and complete to the best of my knowledge.

Signed Terry D. Burns *Terry D. Burns* Title Geologist Date 01-04-96

(This space for Federal or State office use)

API NO. 43-007-30290

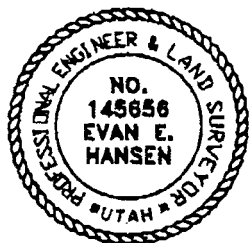
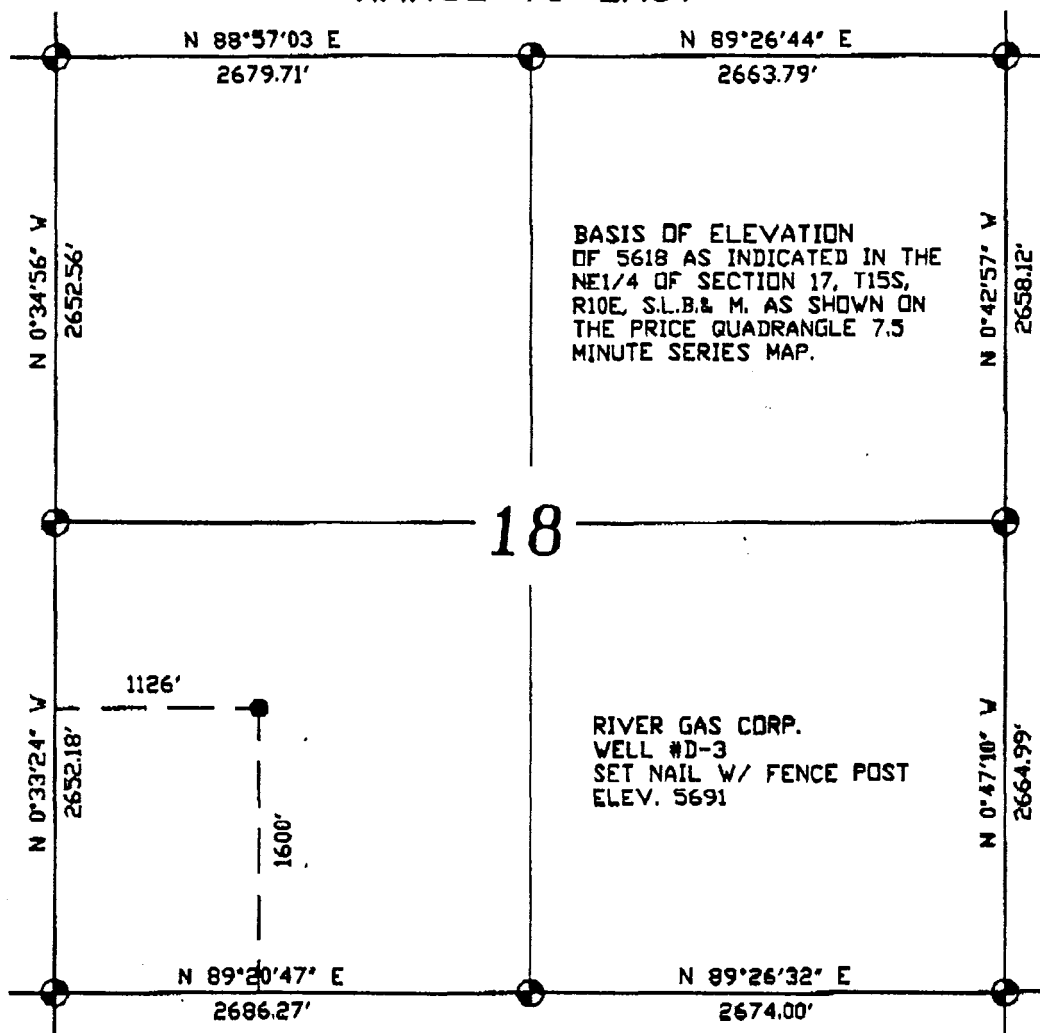
Approved by JRM Matthews Title Petroleum Engineer Date 2/14/96

Conditions of approval, if any:

*See Instructions On Reverse Side

RANGE 10 EAST

TOWNSHIP 15 SOUTH



LEGEND

- ⊙ FOUND BRASS CAP
- SEARCHED FOR BUT NOT FOUND
- ⬡ FOUND ROCK CORNER

BASIS OF BEARING

BASIS OF BEARING N 88°57'03" E MEASURED BETWEEN THE NW CORNER AND THE NE1/4 CORNER OF SECTION 18, TOWNSHIP 15 SOUTH, RANGE 10 EAST, SALT LAKE BASE AND MERIDIAN.

ENGINEER'S CERTIFICATE

I, EVAN E. HANSEN, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND PROFESSIONAL ENGINEER HOLDING CERTIFICATE NUMBER 145656 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT I HAVE MADE A SURVEY OF THE TRACT OF GROUND SHOWN AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

Evan E. Hansen
EVAN E. HANSEN

DEC 20, 1995
DATE

SW1/4 SEC. 18, T 15 S, R 10 E, S.L.B. & M.

Empire Engineering

1665 E. Sagewood Rd. Price, Utah 84501

**RIVER GAS CORP.
WELL #D-3**

Drawn By:
TLH

Approved By:
EEH

Drawing No.

Date:
12/20/95

Scale:
1"=1000'

EEOG-9472A

DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS
 Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
 Use APPLICATION FOR PERMIT for such proposals.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other (specify) Water Disposal Well		ML 38666 7. Indian Allottee or Tribe Name
2. Name of Operator River Gas Corporation		8. Unit or Communitization Agreement UTU67921X
3. Address of Operator 511 Energy Center Blvd.; Northport, AL 35476		9. Well Name and Number Utah D-3
4. Telephone Number (205) 759-3282		10. API Well Number Not yet assigned
5. Location of Well Footage : 1600' FSL & 1126' FWL CO. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E		11. Field and Pool, or Wildcat Drunkards Wash
County : Carbon State : UTAH		

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA	
NOTICE OF INTENT (Submit in Duplicate) <input type="checkbox"/> Abandonment <input type="checkbox"/> New Construction <input type="checkbox"/> Casing Repair <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Recompletion <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Water Shut-Off <input checked="" type="checkbox"/> Other <u>Revision of Casing Design</u>	SUBSEQUENT REPORT (Submit Original Form Only) <input type="checkbox"/> Abandonment <input type="checkbox"/> New Construction <input type="checkbox"/> Casing Repair <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Other _____ Date of Work Completion _____ Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. - Must be accompanied by a cement verification report.
Approximate Date Work Will Start <u>ASAP</u>	

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Attached is a copy of the schematic of the revised well casing design. (

REVISED CEMENTING PROGRAM:

Hole Size	Casing Size	Wght/ft.	Setting Depth	Cement Quantity (est.)
17 1/2"	13 3/8"	48 lbs	500'	380 sx Class G, 15.8ppg
12 1/4"	9 5/8"	36 lbs	3500'	280 sx Hi-Lift, 11 ppg plus
				100 sx Class G, 15.8 ppg
8 3/4"	7"	26 lbs	6300'	Stage 1(bottom): 225 sx
				50/50 Poz, 12.5 ppg, and
				100 sx RFC, 14.2 ppg
				Stage 2 (Top): 190 sx 50/50
				Poz, 100sx RFC

14. I hereby certify that the foregoing is true and correct.

Name & Signature Dennis Plowman Title Reservoir Technician Date 02/08/96

(State Use Only)

J.P. Matthews Petroleum Engineer
43-007-30290

2/14/96

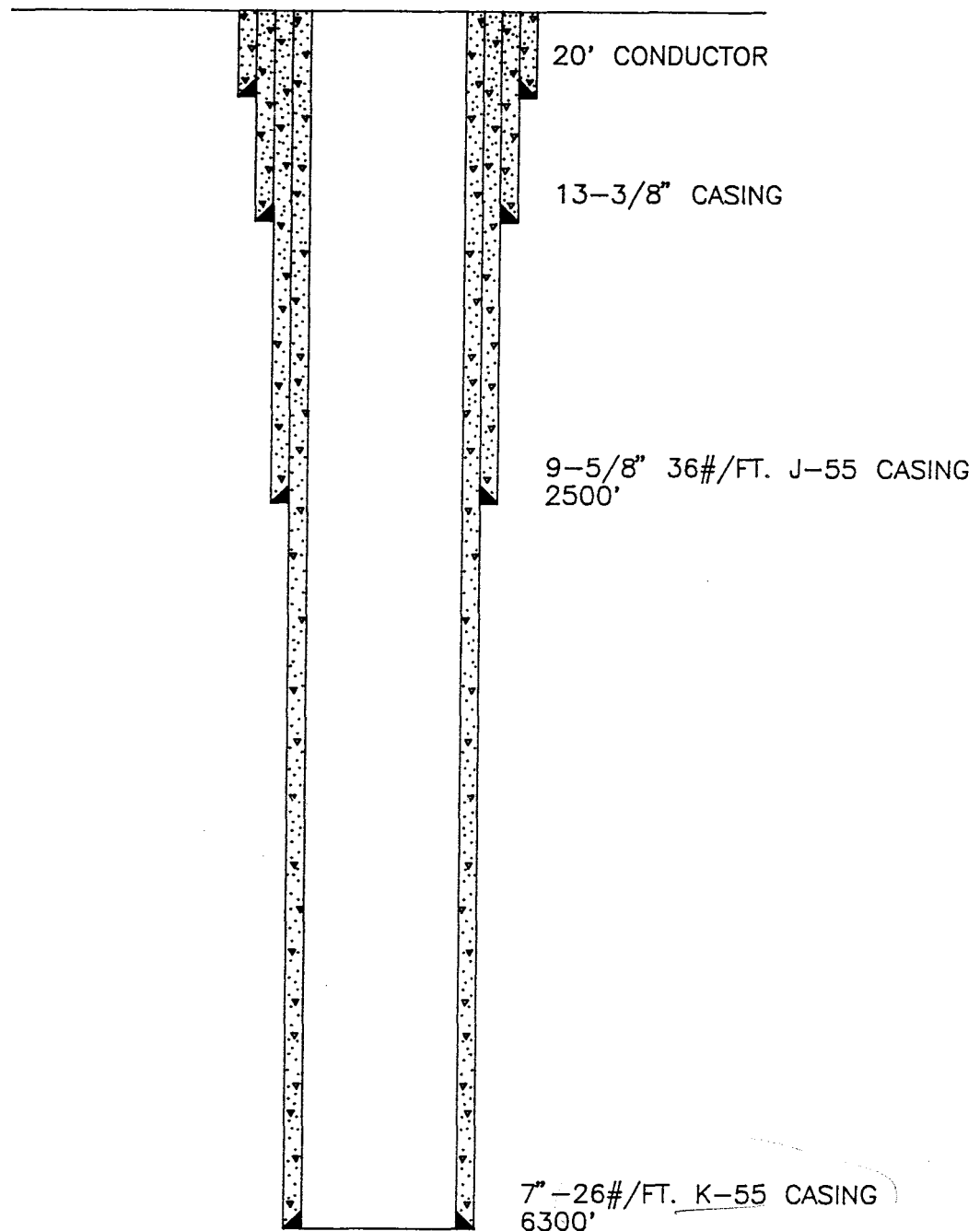
Post-it [®] Fax Note 7671		Date <u>2-12-96</u>	# of pages <u>1</u>
To <u>DAN JARVIS, M. HEBER</u>	From <u>773</u>		
Co./Dept.	Co. <u>RGC</u>		
Phone #	Phone #		
Fax # <u>801-359-3940</u>	Fax #		

(3.75)

PROPOSED DISPOSAL WELL D-3

SEC. 18, T 15 S, R 10 E
(1600' FSL, 1126 FWL)

CARBON COUNTY, UTAH



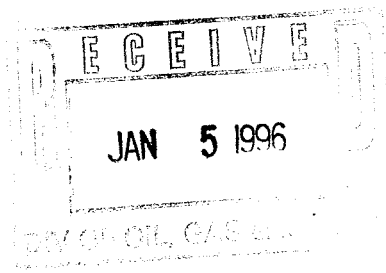
2/7/96

RIVER GAS CORP.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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Date 01-04-96

(This space for Federal or State office use)

API NO. 43-007-30290

Approved by JM Matthews

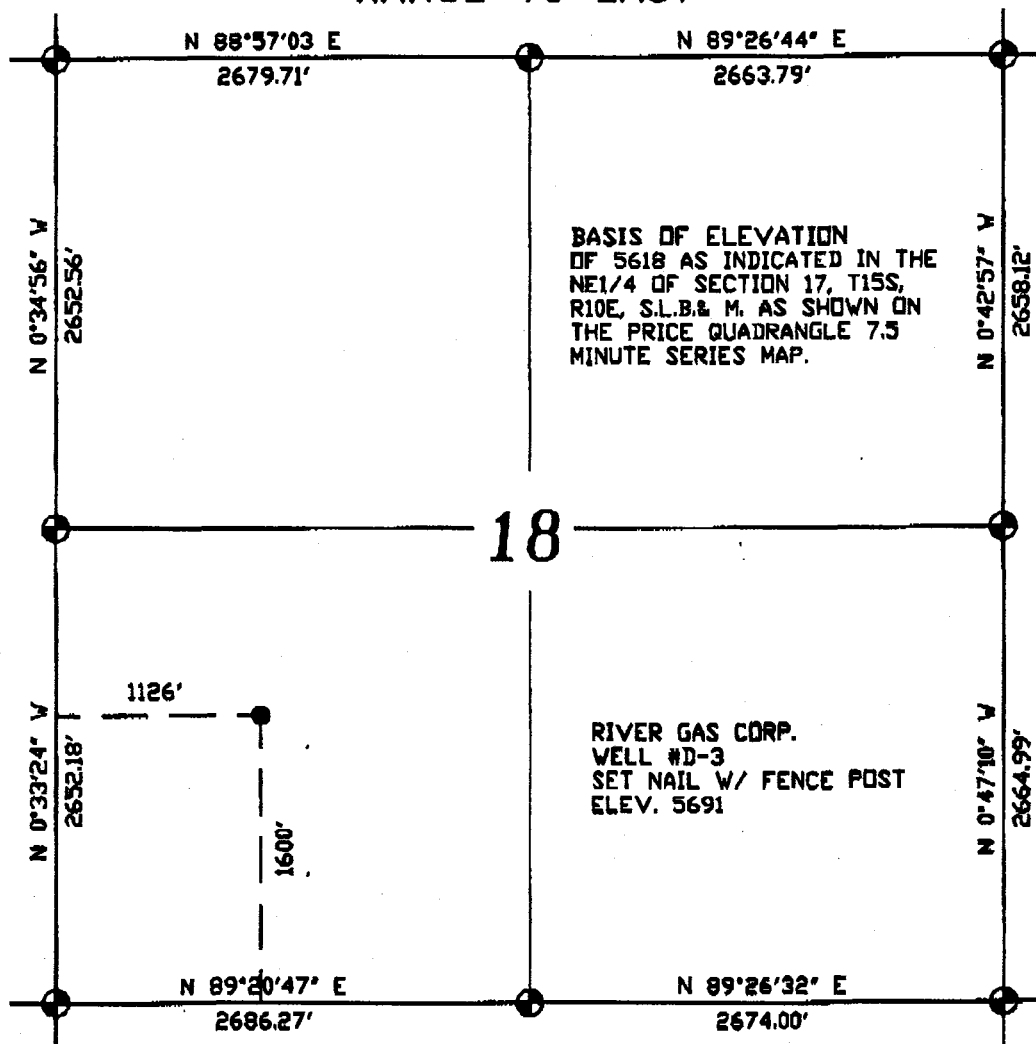
Title Petroleum Engineer Date 2/14/96

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*See Instructions On Reverse Side

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TOWNSHIP 15 SOUTH

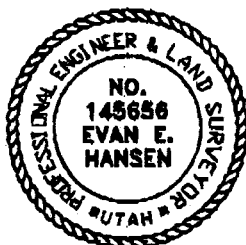


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EVAN E. HANSEN DATE

SW1/4 SEC. 18, T 15 S, R 10 E, S.L.B. & M.

Empire Engineering

1665 E. Sagewood Rd. Price, Utah 84501

**RIVER GAS CORP.
WELL #D-3**Drawn By:
TLHApproved By:
EEH

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Date:
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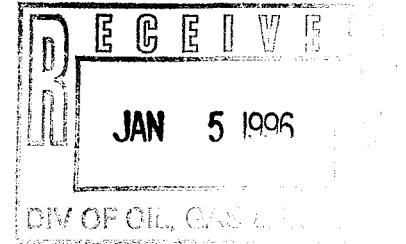


RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)

January 4, 1996

Mr. Michael Hebertson
Utah Board of Oil, Gas, and Mining
Suite 350, 3 Triad Center
355 West North Temple
Salt Lake City, Utah 84180-1203



RE: Application for Permit to Drill -
D-3, NW 1/4 of SW 1/4 of Sec. 18, T15S, R10E
S.L.B. & M., Carbon County, Utah

Dear Mr. Hebertson:

Enclosed is an original and one copy of an "Application for Permit to Drill" the well described above. Attached to the APD is the following information:

- Attachment #1 - Copy of survey plat of proposed well site
- Attachment #2 - Information regarding use of water at the site
- Attachment #3 - Schematic of B.O.P.
- Attachment #4 - Portion of topographic map indicating proposed well site
- Attachment #5 - Additional drilling information furnished according to State regulations
- Attachment #6 - Typical road cross-section
- Attachment #7 - Evidence of bond sent to State Lands and Forestry Division
- Attachment # 8 - Selected Points to be Addressed at On-Site Pre-Drill Evaluation
- Attachment #9 - Drilling Layout
- Attachment # 10 - Well Disposal Site Layout

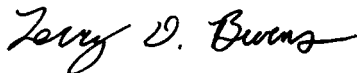
Page Two

An archaeological/paleontological survey is scheduled to be conducted during the 2nd week of this month, and will be submitted to you.

Also, please accept this letter as our request that all information regarding this permit be kept confidential, if said information is eligible for such consideration. This request is made in accordance with State of Utah Oil and Gas rule # R649-2-11.

Thank you for your assistance. Please feel free to contact me if you have questions.

Sincerely,



Terry D. Burns

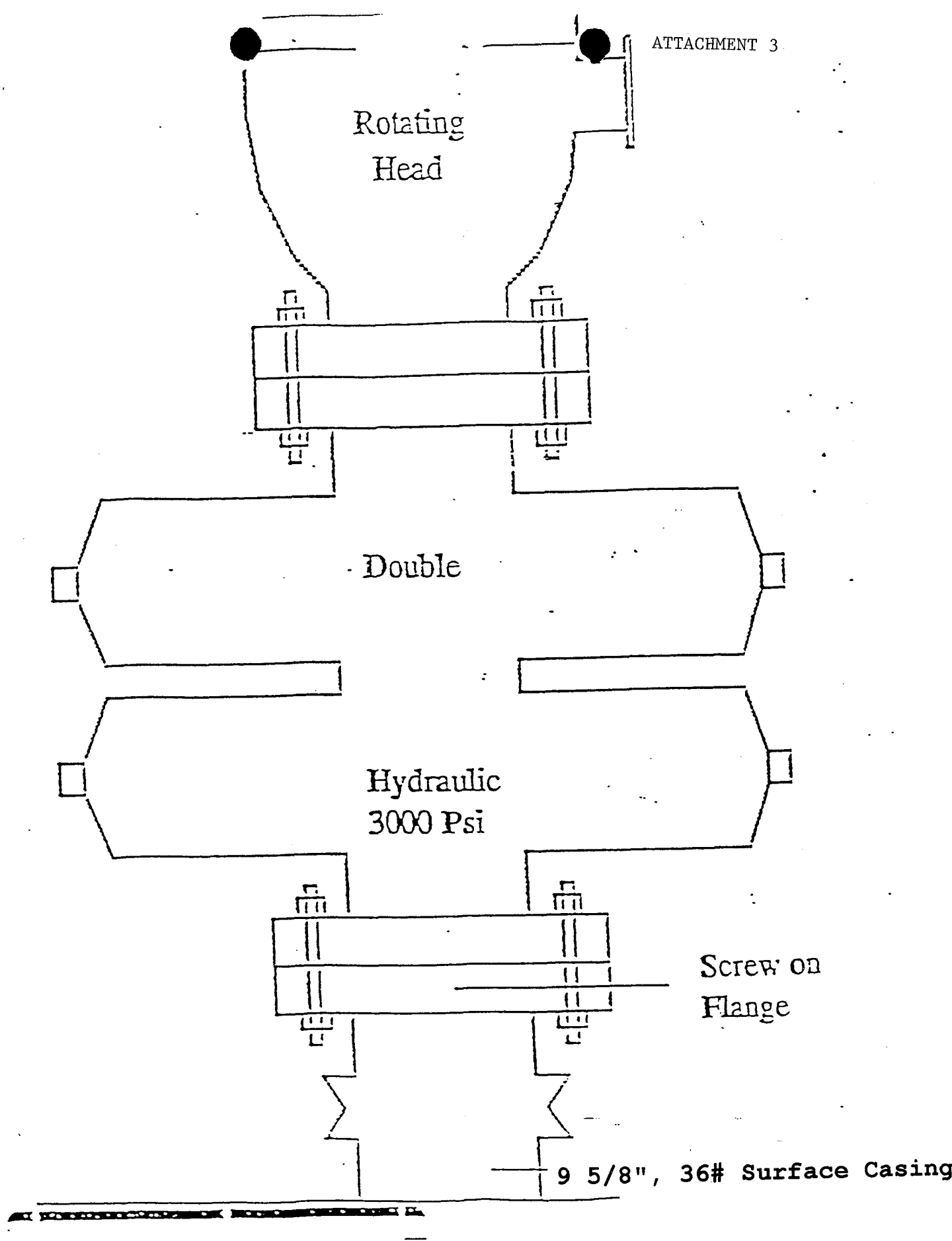
Geologist

cc: Mr. Edward W. Bonner, Utah Department of Natural Resources
Mr. Eric Jones, BLM in Moab, Utah
Mr. Dean Nyffler, BLM in Price, Utah
Mr. Robert A. Hendricks, BLM in Salt Lake City, Utah
Mr. J.R. French, Texaco
Mr. R.A. Lamarre, Texaco
Mr. Gee Lake, Jr., Dominion Reserves

— RIVER GAS OF UTAH, INC. —
ATTACHMENT #2

RE: Use of Water During Drilling Operations

As stated, water which we will be using is to be purchased from the Price River Water Improvement District (Tel. 801-637-6350). This has been arranged by Mr. Michael J. Farrens, Drilling Supervisor for River Gas of Utah, Inc. He has been in contact with Mr. Phillip Palmer. Mr. Farrens has discussed this arrangement with Mark Page of the Division of Water Rights (Tel. 801-637-1303) over the telephone. The Division of Water Rights is to furnish the Oil & Gas Division with a letter of approval concerning this matter.



RIVER GAS CORPORATION
Additional Drilling Information

D-3

1600' FSL & 1126' FWL

Section 18, Township 15 South, Range 10 East

R649-3-4 Permitting of Wells to be Drilled, Deepened or Plugged Back

2.1 Telephone numbers for additional information:

Billy Stacy Operations Manager	(801)637-8876 Office (801)636-5660
Steven L. Prince Asst. Operations Manager	(801)637-8876 Office (801)636-5256 Mobile
Fred Passarella Pumper	(801)637-8876 Office (801)636-5257 Mobile
Randy Nairemore	(801)637-8876 Office (801)636-5259 Mobile
Michael J. Farrens Vice President	(205)759-3282 Office (205)758-8535 Home

2.2 Lease: State of Utah ML-38666

2.3 This gas well will be drilled within the Drunkards Wash Unit. The Unit No. is UTU 67921X.

2.4 Survey Plat: See Attachment #1

2.5 Water will be purchased from Price River Water Improvement District: See Attachment #2.

2.6 Drilling program.

2.6.1 The following geologic units are expected to be penetrated in the well.

<u>Formation/Unit</u>	<u>Est. Depth (top)</u>
Upper Mancos Shale	Surface
Ferron Sandstone	1750
Tununk Shale	2000
Dakota Sandstone	2350
Morrison	3200
Summerville	3700
Curtis	4100
Entrada	4250
Carmel	4900
Navajo Sandstone	5600
Kayenta Sandstone	5900
T.D.	6300

2.6.2 This well is being drilled strictly for the injection of produced waters from RGC's surrounding coalbed methane operations. Zones which are expected to be gas & water-bearing are the coals and sandstones of the Ferron Formation. Other water-bearing zones to be penetrated are the Entrada and Navajo. No near - surface groundwater is expected to be encountered.

2.6.3 A double gate 3000 psi BOPE will be used with a rotating head. This equipment will be tested to 2100 psi or 70% of the minimum internal yield pressure. All tests will be recorded in a Driller's Report Book. Physical operation of BOP's will be checked on each trip. See Attachment #3 for Schematic.

2.6.4 Casing Program - 12 3/4" conductor pipe will be set to approx. 20'. 9 5/8" , 36 lb/ft surface casing will be set to 500' and cemented with approx. 155 sacks of class "G" cement with 2% CaCl₂, which has a density of 15.80 lb/gal. 7", 26 lb/ft LT&C production casing will be run and cemented with approximately 390 sacks 50/50 Pozmix cement and tail-in with approx. 130 sacks "RFC". Cement volumes may vary depending on hole conditions.

2.6.5 Mud Program:
Depth

0-500	12 1/4" hole	Drill with air, will mud-up if necessary.
500-6300	8-1/2" hole	Drill with air. 400 psi @ 1500-1800 Scf.

2.6.6 Logging and Testing Program:

Depth

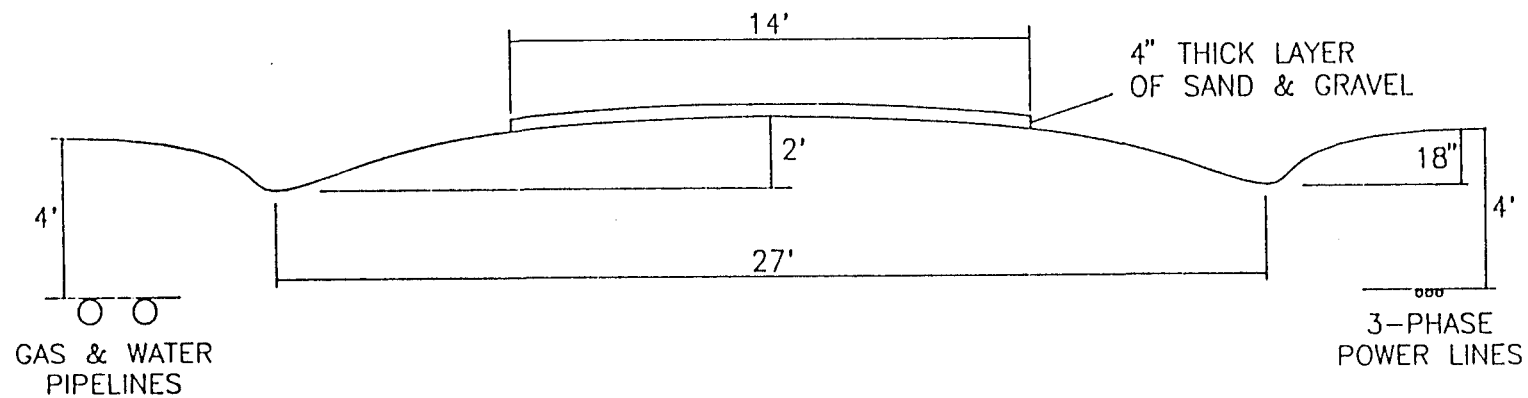
0-300	Gamma Ray
300-6300	Gamma Ray, SP, Neutron-Density, Bulk Density, Induction, Caliper,

Sidewall cores, 7/8" diameter, 2" in length, will be obtained from selected zones within the Navajo and possibly Entrada Formations.

As requested by the DOGM, DST's will be conducted from Entrada and Navajo Formations.

2.6.7 We expect 2830 psi for bottom hole pressure. No hazards are expected.

RIVER GAS CORPORATION



TYPICAL ROAD CROSS-SECTION

NOT TO SCALE

3/23/95

ATTACHMENT #6



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

Michael O. Leavitt Governor	Southeastern Area
Ted Stewart Executive Director	453 South Carbon Avenue
Robert L. Morgan State Engineer	P.O. Box 718
	Price, Utah 84501-0718
	801-637-1303

November 29, 1995

River Gas of Utah
Attn: Steven Prince
290 South Highway 55
Price, Utah 84501

Re: Stream Channel Permit Applications

Dear Mr. Prince:

On several occasions, we have discussed when a Permit Application should be filed in conjunction with your gas development project west of Price. A permit must be filed if the following working definition applies: "Any natural waterway in the State which has flows of sufficient frequency and duration that it develops a characteristic ecosystem distinguishing it from the surrounding environment."

I hope this information is helpful. If at any particular location you are uncertain how to apply this definition, please call and I would be happy to meet with you and make the determination.

If I can provide any additional information, please do not hesitate to call or stop by my office.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Mark P. Page'.

Mark P. Page
Regional Engineer

MPP/mjk



AmSouth Bank

ATTACHMENT 7

Birmingham:

TELEX: 6827189
Cable: AMSOUBKBHM
S.W.I.F.T. AMSB US 44

Mobile:

TELEX: 6821116
Cable: AMSOMBL
S.W.I.F.T. AMSB US 44

AMSOUTH BANK OF ALABAMA
1900-FIFTH AVENUE NORTH
BIRMINGHAM, ALABAMA 35203 USA
OUR REFERENCE NUMBER: S304606

International Services

AMENDMENT NUMBER: 005
TO LETTER OF CREDIT NUMBER: S304606
DATE: NOVEMBER 13, 1995

BENEFICIARY:

STATE OF UTAH, DEPARTMENT OF
NATURAL RESOURCES, DIVISION OF
STATE LANDS AND FORESTRY
#3 TRIAD CENTER SUITE 400
355 WEST TEMPLE
SALT LAKE CITY, UTAH 84180-1204

AT THE REQUEST OF RIVER GAS CORPORATION 511 ENERGY CENTER BLVD
NORTHPORT, ALABAMA 35476

WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S304606 DATED
DECEMBER 14, 1990 OPENED IN YOUR FAVOR AS FOLLOWS:

--ACCOUNT PARTY'S ADDRESS IS CHANGES TO:

511 ENERGY CENTER BLVD.
NORTHPORT, ALABAMA 35476

**REFERENCES HEREIN TO AMSOUTH BANK N.A. SHALL BE DEEMED TO REFER
TO AMSOUTH BANK OF ALABAMA.**

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF
CREDIT AND IS TO BE ATTACHED THERETO.


AUTHORIZED SIGNATURE

AmSouth Bank

Birmingham:

TELEX: 6827189
Cable: AMSOUBKBHM
S.W.I.F.T. AMSB US 44

AMSOUTH BANK OF ALABAMA
1900 FIFTH AVENUE NORTH
BIRMINGHAM, ALABAMA 35203 USA
OUR REFERENCE NUMBER: S308586

International Services

Mobile:

TELEX: 6821116
Cable: AMSOMBL
S.W.I.F.T. AMSB US 44

AMENDMENT NUMBER: 002
TO LETTER OF CREDIT NUMBER: S308586
DATE: NOVEMBER 13, 1995

BENEFICIARY:
STATE OF UTAH
DEPT. OF NATURAL RESOURCES
DIV. OF OIL, GAS AND MINING
355 WEST TEMPLE 3 TRIAD CENTER
SUITE 350
SALT LAKE CITY, UTAH 84180-1203

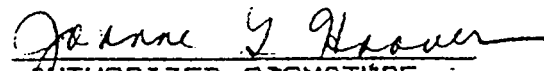
AT THE REQUEST OF RIVER GAS CORPORATION 3600 WATERMELON ROAD
SUITE 204 NORTHPORT, ALABAMA 35476 AND FOR THE ACCOUNT OF SAME

WE HEREBY AMEND OUR LETTER OF CREDIT NUMBER S308586 DATED
DECEMBER 3, 1993 OPENED IN YOUR FAVOR AS FOLLOWS:

-ACCOUNT PARTY'S ADDRESS IS CHANGED
TO: 511 ENERGY CENTER BLVD
NORTHPORT, ALABAMA 35476

**REFERENCES HEREIN TO AMSOUTH BANK N.A. SHALL BE DEEMED TO REFER
TO AMSOUTH BANK OF ALABAMA.**

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.
THIS AMENDMENT BECOMES AN INTEGRAL PART OF THE ORIGINAL LETTER OF
CREDIT AND IS TO BE ATTACHED THERETO.


AUTHORIZED SIGNATURE

Attachment 8

D-3

1600' FSL, 1126 ' FWL, SEC. 18, T15S, R10E

Selected Points to be Addressed in On-site Predrill Evaluation

Surface Owner: S.I.T.L.A
3 Triad Center, Suite 400
Salt Lake City, UT. 84180-1204

Surface Use Plan

Current Surface Use - Grazing. Lessee: Boyd Marsing P.O. Box 806 Price, Utah 84501

- Point #2 Location Access - From Price Fairgrounds, follow project road westward through gate. Continue for approx. 1.7 miles to 4-way intersection. Turn left and head south for approx. 4.2 miles. Turn left, go by well #13-66, then 13-65. Turn right at intersection and head south for .40 miles. Turn left to well # 18-72. A new access road to subject well D-3 will be constructed from west side of 18-72 pad. (see Attachment #4)
- Point #3 Wells within 1-mile radius of proposed location - See Attachment #4
- Point #4 Location of Production Facilities and Pipelines - This well will be drilled strictly for water disposal. As shown on Attachment 10, a 225' x 175' well pad will be constructed. Just west of the pad will be a pump building, tanks, and a separator. Approximately 300' west of the drill pad, a 320' x 320' pond will be constructed. Total estimated surface disturbance: 7.80 acres.
- Point #6 Source of Construction Material - In-place residual of Mancos Shale. Gravel will be purchased from a local contractor.
- Point #7 Waste Management Plan - All drill cuttings will be diverted to pit, as well as fluids encountered. Afterwards, the fluids will be allowed to evaporate and cuttings will be buried. Also, a portable bathroom facility will be provided during drilling operations

DRILLING CAPACITY: 4,000' - 7.5

DRAWWORKS: Franks 600

MAIN POWER: CAT 3412TA

MAST: Franks 112', 400,000# GNC

SUBSTRUCTURE: 12' or 15' high

PUMPS: #1 Gardner Denver PZ7
#2 Gardner Denver PY7

PUMP POWER: #1 CAT 3412 TA
#2 CAT D-379

GENERATORS: (2) CAT 3406, 200 kW and 175 kW

ROTARY TABLE: Ideco 17.5"

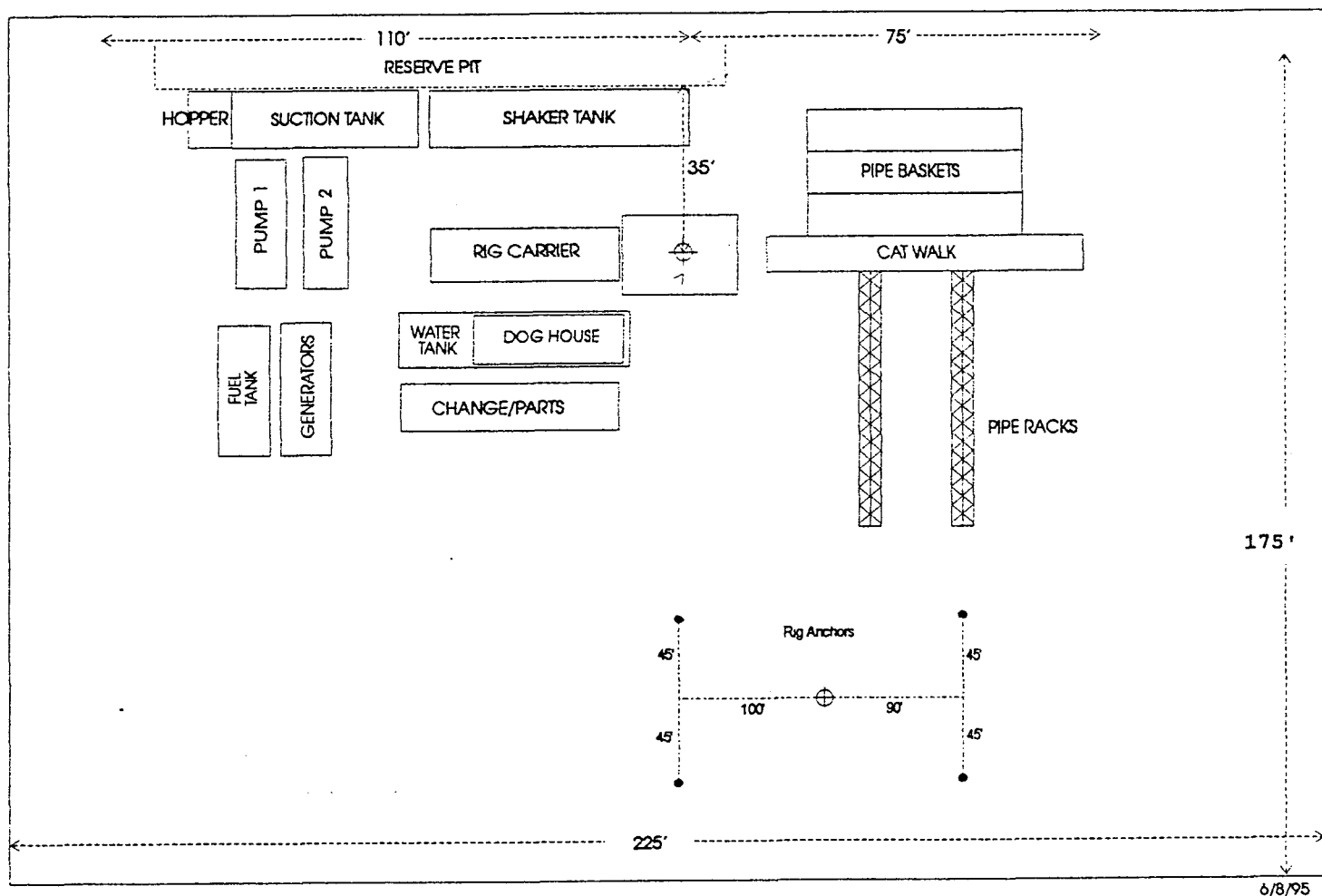
SWIVEL: Oilwell 150 ton

HOOK/BLOCK: Ideco 160 ton, unitized

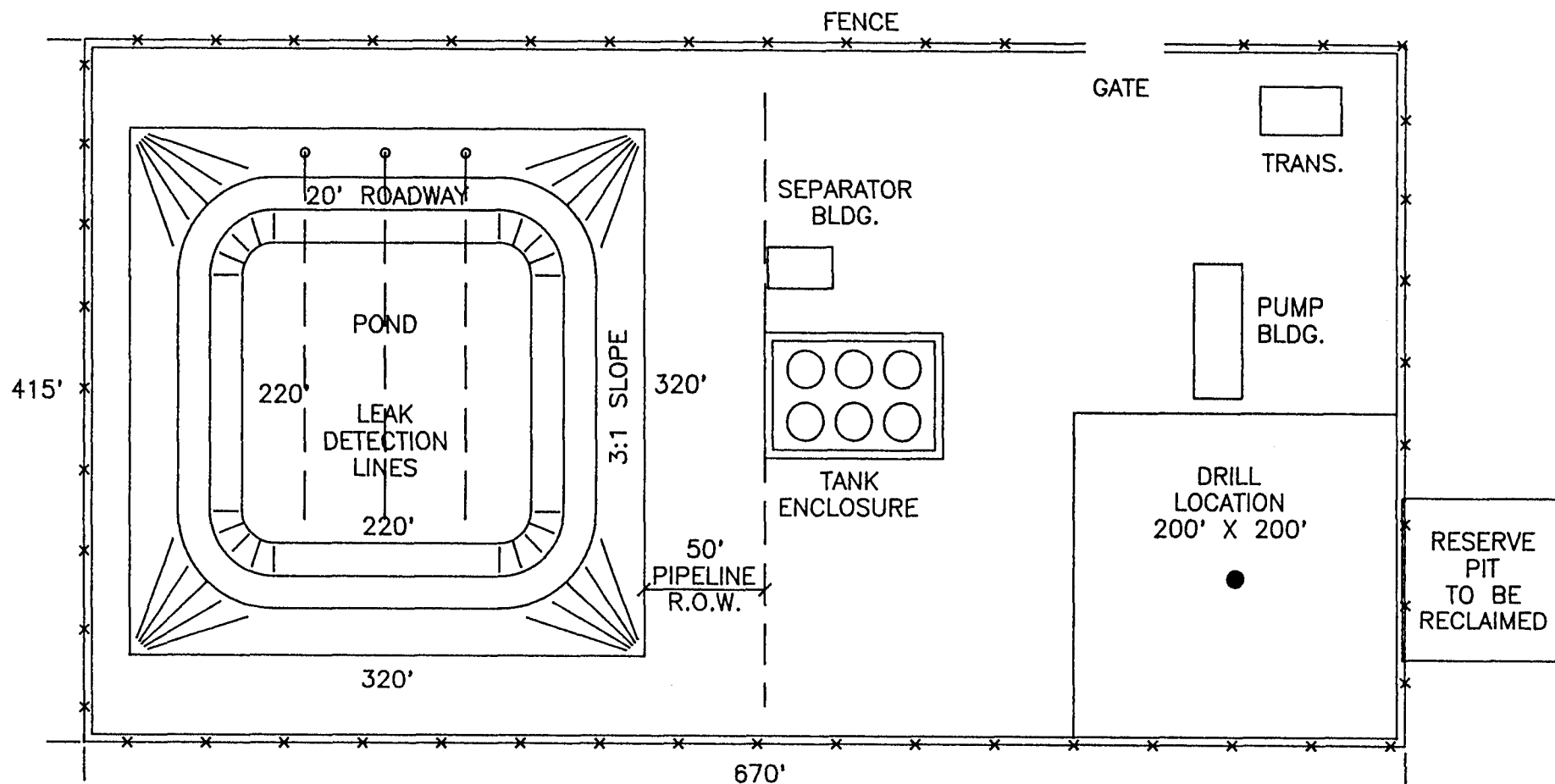
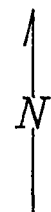
MUD SYSTEM: 600 bbl

FUEL STORAGE: 10,000 gals

WATER STORAGE: 300 bbl



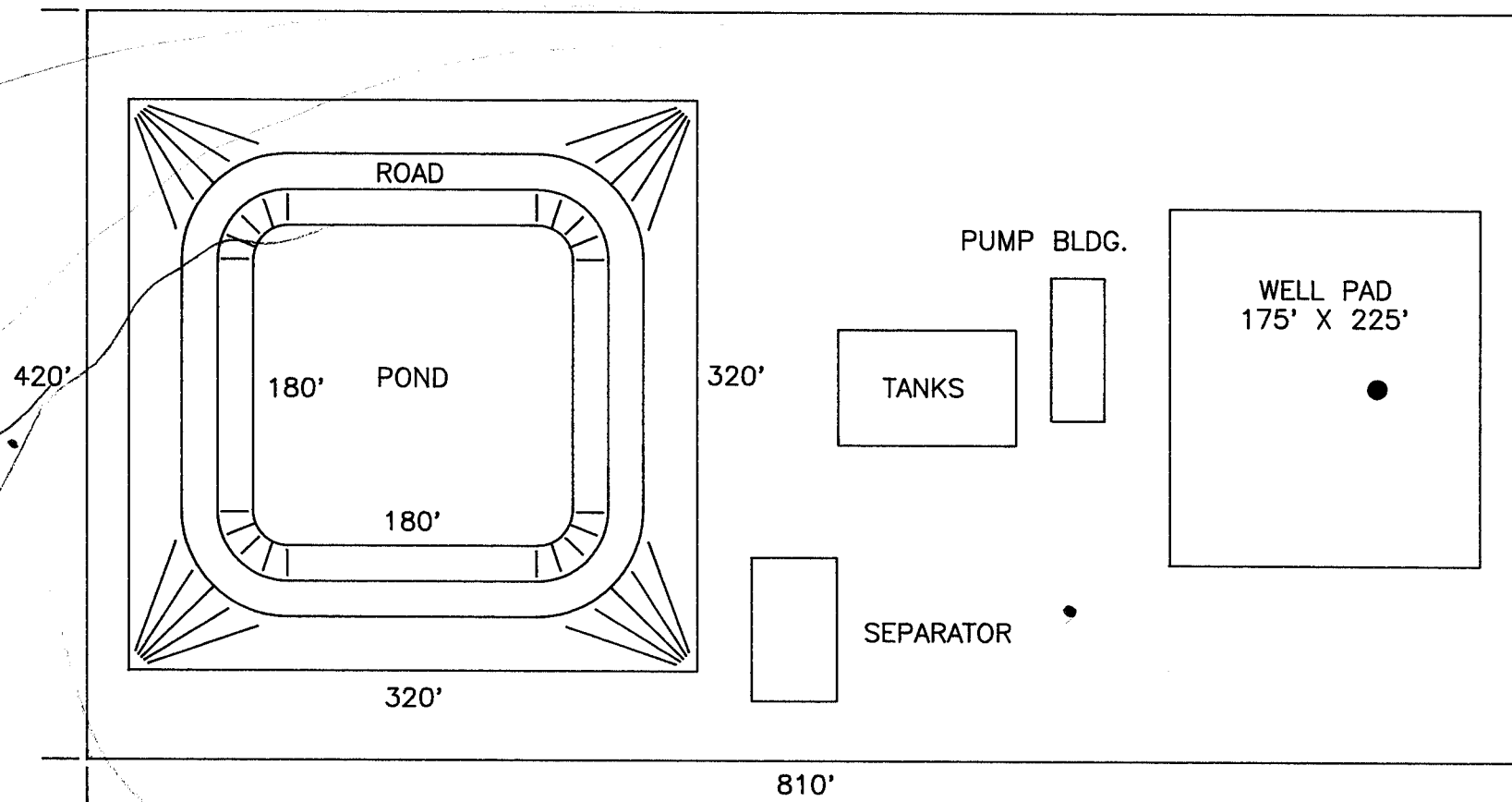
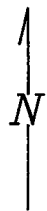
PROPOSED DISPOSAL WELL D-3



DISTURBED AREA - 278,050 SQ.FT. (6.38 Ac.)

RIVER GAS CORP.
2/6/96

PROPOSED DISPOSAL WELL D-3



DISTURBED AREA - 340,200 SQ. FT. (7.8 AC.)

ATTACHMENT 10

RIVER GAS CORP.
1/3/96

43-007-30339

BASELINE DATA, INC.
1053 SOUTH STATE STREET
OREM, UTAH 84058
(801) 224-5288

JAN 8 1996

January 12, 1996

Terry Burns
River Gas of Utah
511 Energy Center Blvd.
Northport, AL 35476

Re: Cultural report on Well #D-3

Dear Mr. Burns:

Due to the negative nature (no cultural resources were located) of this well survey, I am expediting the report to you in a letter format. Copies of this letter and attachments will be forwarded to the respective government review agencies; Division of Oil Gas and Mining (DOGM); State Institutional Trust Lands; and Utah State Historic Preservation Office (USHPO).

During the month of January, 1996, Baseline Data Inc. completed a cultural resource inventory of the proposed River Gas of Utah, Well #D-3. This well is located southwest of Price, Utah. The inventory was conducted by James R. Allison, Principal Investigator for Baseline. The inventory was requested by Terry Burns of River Gas of Utah, in Northport, Alabama. Ground visibility in January was excellent due to the warm weather and lack of snow cover preceding the survey. The inventory was carried out under Utah State Project Authorization No. U-96-BS-002s.

The survey area is located about 6 miles south of Price, Utah along SR 10, just north of Miller Creek. The well is located in Section 18, T. 15S, R. 10E, on the Price 7.5" Quad.

The survey area is within the Mancos Shale Lowlands Subsection of the Colorado Plateau Province (Stokes 1977). The area is dominated by eroded residual Mancos Shale Clay or alluvium and colluvium derived from the Mancos Shale. Soils in the surveyed area are very light brown silty sands. Vegetation in the surveyed area includes greasewood, snakeweed, saltbush, shadscale, lowsage, prickly pear, Indian rice grass. No wildlife was observed during the survey, but rabbit droppings are abundant and some coyote droppings were present as well.

The well location (survey area) was clearly marked by a large survey stake which marked the center of the proposed well pad. The access road was marked with pin-flags about 15 - 20 m

ARCHAEOLOGICAL

HISTORICAL

ENVIRONMENTAL

Terry Burns
January 12, 1996
page 2

apart. A 150 m diameter circular area around the large center survey stake was examined by walking a series of concentric circles spaced approximately 10 m apart. The access road was surveyed by walking one transect on either side of the pin-flagging. A corridor with a total width of approximately 30 m was examined.

Baseline completed a Class I file search of the project area which included both historic and prehistoric cultural resources, at the State Historical Preservation Office. Martha Hayden, assistant State Paleontologist, was consulted regarding the necessity of a paleontological survey; she felt that the area in question had a very low probability for paleontological resources, and no paleontological survey was needed. There are no records of any cultural or paleontological sites within the survey area. Cultural resource inventories completed in the general project are summarized in a previous report completed for River Gas by Baseline (Norman et al. 1995). The National Register (January 5, 1995) was also examined. There are no sites currently listed on the National Register or sites being considered for nomination to the Register within the proposed project area.

No cultural resources of any kind (historic or prehistoric) were observed during this survey. It is the opinion of Baseline Data that this new well and access road will have no impact on the region's cultural or paleontological resource inventory. No further research or mitigation is recommended.

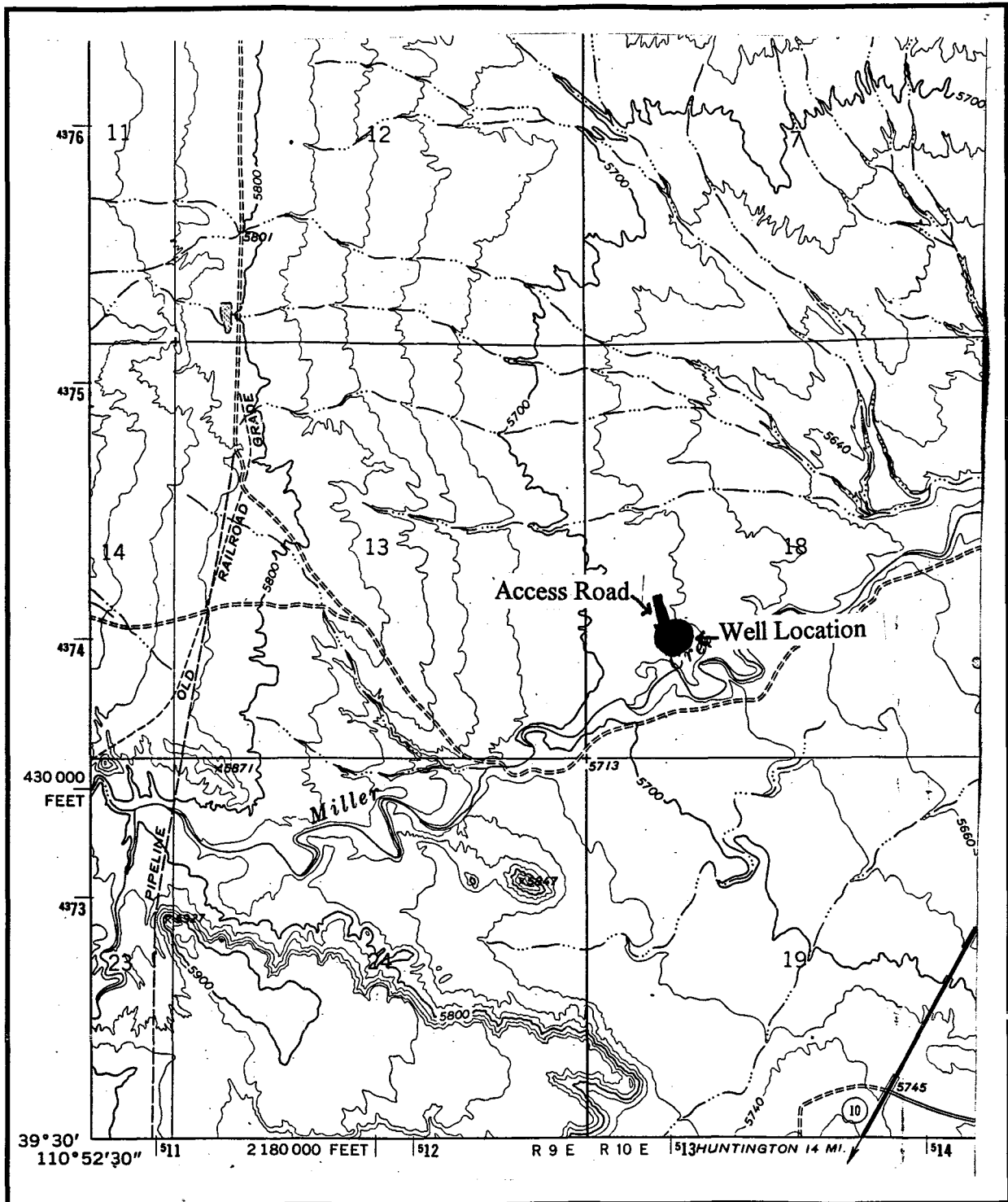
References noted in this letter include;

- Norman, V. Garth, Asa S. Nielson, and Shane R. Sulz
1995 *A Cultural Resource Inventory of the River Gas Corporation 1995 Drilling Season in Emery and Carbon County, Utah, on State, Private and Federal Land.* Research Report No. U95-13, Baseline Data, Inc., Salt Lake City.
- Stokes, William Lee
1977 *Subdivisions of the Major Physiographic Provinces in Utah.* *Utah Geology* Vol. 4 No. 1. Utah Geological and Mineral Survey, Department of Natural Resources, Salt Lake City, Utah.

Sincerely,


Charles E. Hughes
President

cc: James Dykman, Utah Division of State History
Kenneth L. Wintch, State Institutional Trust Lands Administration
Mike Hebertson, Division of Oil, Gas, and Mining
Steven Prince, River Gas, Price, Utah



Project Location (Price 7.5 minute USGS quad map).

**MUST ACCOMPANY ALL PROJECT REPORTS
SUBMITTED TO UTAH SHPO**

PROJECT NAME: River Gas Well Number D-3

STATE PROJ. NO.: U96-BS-002s

PRINCIPAL INVESTIGATOR: James R. Allison

FIELD SUPERVISOR(S) James R. Allison

ACREAGE SURVEYED

INTENSIVE: 5.1 **ACRES** **RECON/INTUITIVE:** 0 **ACRES**

7.5' SERIES USGS MAP REFERENCE(S): Price

ARCHAEOLOGICAL SITES

REVISITS (NO INVENTORY UPDATE) 0

REVISITS (UPDATED IMACS ATTACHED) 0

NEW RECORDINGS (IMACS ATTACHED) 0

TOTAL ARCHAEOLOGICAL SITES 0

HISTORIC STRUCTURES (106 SITE INFO ATTACHED) 0

TOTAL NATIONAL REGISTER ELIGIBLE SITES 0

CHECKLIST OF REQUIRED ITEMS

1. X 1 COPY OF THE FINAL REPORT

2. X 7.5' SERIES USGS MAP W/ SURVEY/EXCAVATION AREA MARKED

3. COMPLETED IMACS SITE INVENTORY FORMS, INCLUDING

 PARTS A AND B OR C,

 IMACS ENCODING FORM,

 SITE SKETCH MAP,

 PHOTOGRAPHS, AND

 7.5' SERIES USGS MAP W/ SITE LOCATION

MARKED AND LABELLED W/ SMITHSONIAN SITE NUMBER

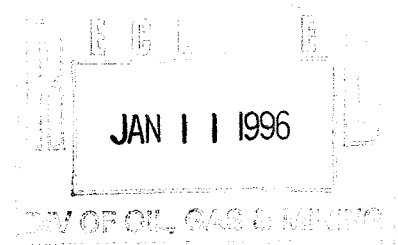
4. X COMPLETED "COVER SHEET" W/ FINAL REPORT AND FORMS

OPERATOR River Gas Corporation
ADDRESS 511 Energy Center Blvd.
Northport, AL 35476

Comments: Maximum injection will be submitted at a later date

Disposal Well Application: Utah D-3

- R649-5-2.** Requirements For Class II Injection Wells Including Water Disposal, Storage And Enhanced Recovery Wells.
- R649-5-2.2** See attached.
- R649-5-2.2.1** To be submitted at a later date.
- R649-5-2.2.2** To be submitted at a later date.
- R649-5-2.2.3** To be submitted at a later date.
- R649-5-2.2.4** Logs will be referenced when applicable.
- R649-5-2.2.5** To be submitted at a later date.
- R649-5-2.2.6** To be submitted at a later date.
- R649-5-2.2.7** To be submitted at a later date.
- R649-5-2.2.8** To be submitted at a later date.
- R649-5-2.2.9** To be submitted at a later date.
- R649-5-2.2.10** To be submitted at a later date.
- R649-5-2.2.11** See attached.
- R649-5-2.2.12** To be submitted at a later date.
- R649-5-2.2.13** To be submitted at a later date.



Utah D-3

Requirement R649-5-2.2.11

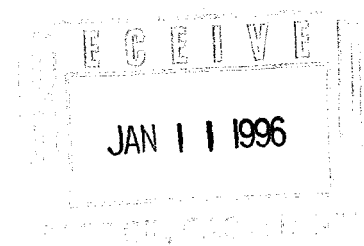
Review of Mechanical Integrity of Surrounding Wells

Utah 13-67 (RGU) - T.D. - 2,295'. 5-1/2" casing set at 2,231.0'.
Circulated cement to surface.

Utah 18-69 (RGU) - T.D. - 2,095'. 5-1/2" casing set at 2,054.0'.
Circulated cement to surface.

Utah 18-71 (RGU) - T.D. - 1,945'. 5-1/2" casing set at 1,927.0'.
Circulated cement to surface.

Utah 18-72 (RGU) - T.D. - 2,120'. 5-1/2" casing set at 2,086.0'.
Circulated cement to surface.



January 12, 1996

To: Charles Willis, River Gas Corp.
From: Gil Hunt, Utah Div. Of Oil, Gas & Mining
Subject: Injection Application #D-3 Well

If you would please provide the following additional information we will proceed with a public notice for this application.

- plat showing wells and ownership within $\frac{1}{2}$ mile
- proposed casing program
- a statement as to fluid source and copy of water analysis of produced water, injection zone water can come later
- general geologic information on target formations, specific info can come later after drilling well
- affidavit that at least notice has been given to owners and surface owners in area

This info can all be supplemented later if need be. This much will allow us to publish notice asap.

Thanks.

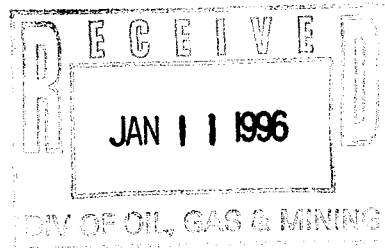


RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)

January 9, 1996

Mr. Gil Hunt
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203



RE: Utah D-3

Dear Mr. Hunt:

As we discussed, I am submitting an injection application for the above referenced well. Much of the information has yet to be determined and will be submitted as soon as possible. Please proceed with publishing the announcement of the proposal for public comment.

Please contact me at your convenience if I may be of any assistance.

Best regards,

A handwritten signature in dark ink, appearing to read "Charles P. Willis".

Charles P. Willis, P.E.
Vice President, Special Projects

cc: Mike Chambers
Mike Farrens
Randy Allen
Joey Stephenson
Callen Hurtt
Terry Burns
Dennis Plowman

Dil,

JAN 16 1996

As you can see, there isn't much
control available. The faults shown
are present in the Mancos + Ferron, but
I'm not sure if all 3 of them penetrate
the Mancos.
Call me if you have questions.

Sincerely,

Terry Burns

determined



RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)

JAN 16 1996

January 11, 1996

Mr. Gil Hunt
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RE: Utah D-3

Dear Mr. Hunt:

I believe you should have already received requirements: R649-5-2.2 and R649-5-2.11 for the Utah D-3 in a letter sent by Charles Willis on Jan. 9, 1996.

The following items may be added to the Utah D-3 injection application. The first enclosed requirement is R649-5-2.2.1. The second addition is a structure map fulfilling R649-5-2.2.10. As additional information is determined we it will be submitted as rapidly as possible.

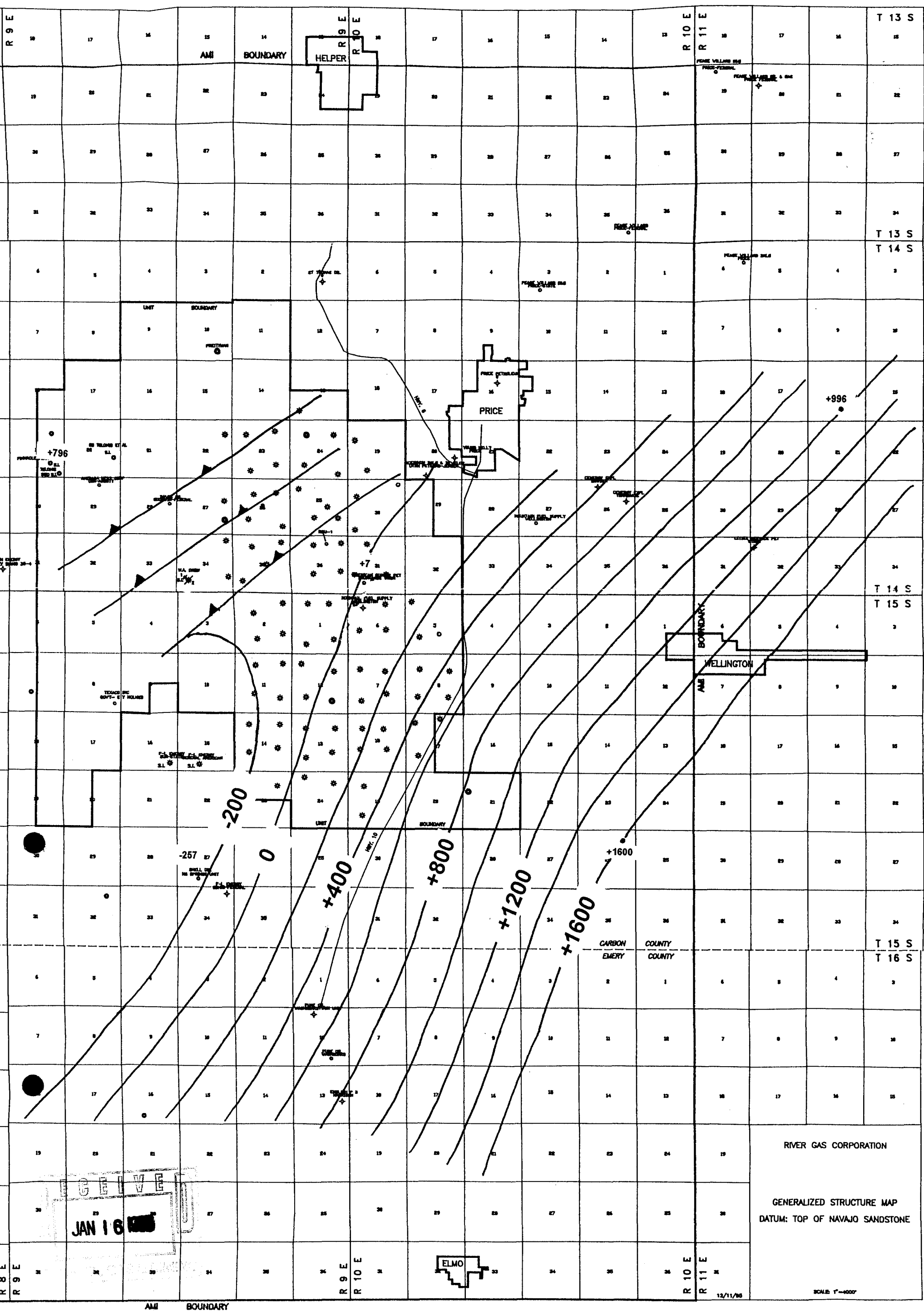
If I may be of assistance please contact me.

Sincerely,

Callen Hurtt

cc:

Mike Chambers
Mike Farrens
Randy Allen
Charles Willis
Joey Stephenson
Terry Burns
Dennis Plowman



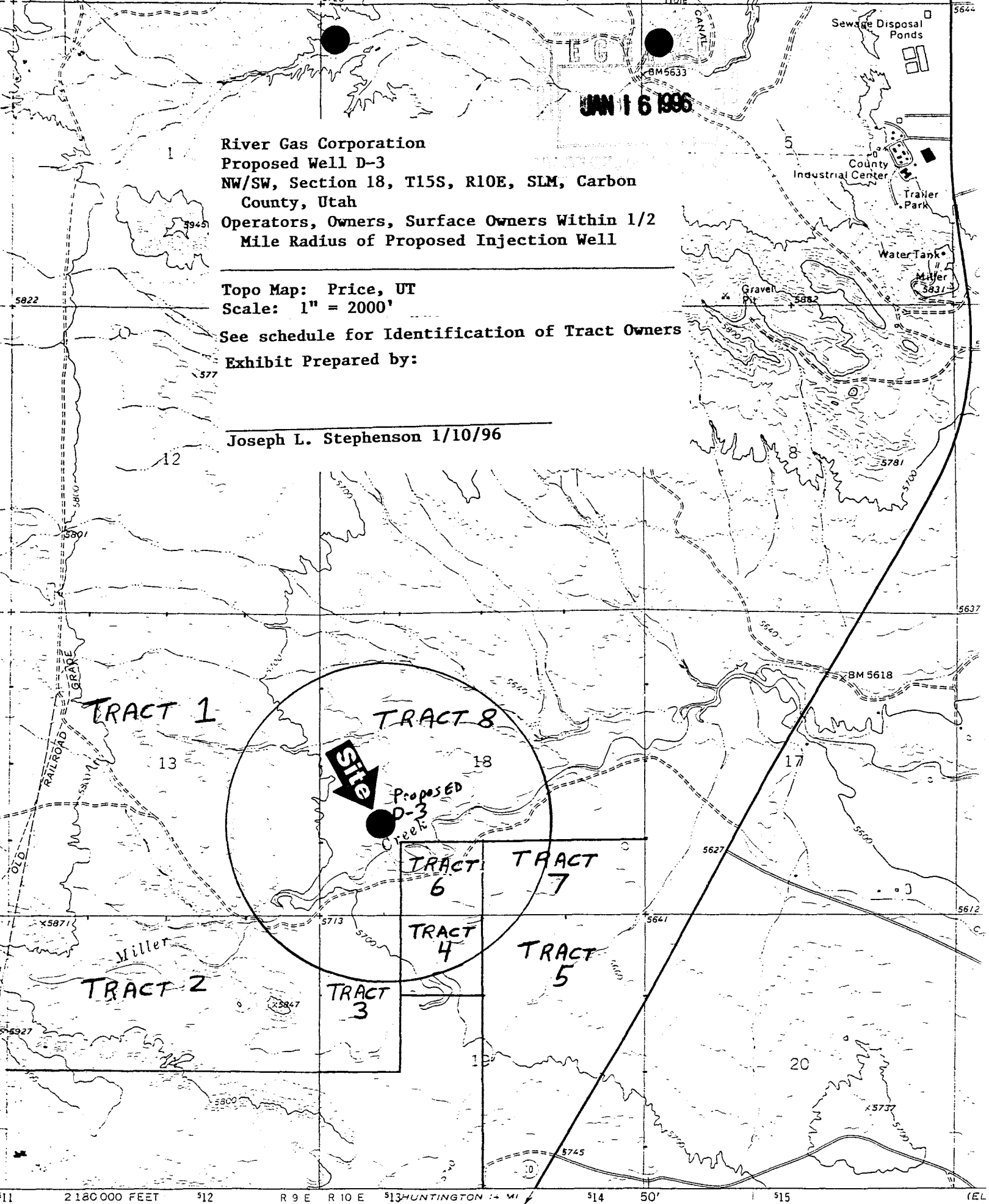
JAN 16 1996

River Gas Corporation
Proposed Well D-3
NW/SW, Section 18, T15S, R10E, SLM, Carbon
County, Utah
Operators, Owners, Surface Owners Within 1/2
Mile Radius of Proposed Injection Well

Topo Map: Price, UT
Scale: 1" = 2000'

See schedule for Identification of Tract Owners
Exhibit Prepared by:

Joseph L. Stephenson 1/10/96



, edited, and published by the Geological Survey

y USGS and NOS/NOAA

hy by photogrammetric methods from aerial

★
GN 1
MN

SCALE
1 2
1000 2000

River Gas Corporation
Proposed Well D-3
NW/SW, Section 18, T15S, R10E, SLM
Carbon County, Utah
Operators, Owners, Surface Owners Within 1/2 Mile Radius

TRACT 1

Surface Owner:	School and Institutional Trust Lands Administration
Mineral Owner:	School and Institutional Trust Lands Administration all minerals
Oil & Gas Lease:	ML-39865
Oil & Gas Lessee:	River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease:	ML-43170
Coal Lessee:	Arjay Oil Company
Other Minerals Lessee:	None

TRACT 2

Surface Owner:	School and Institutional Trust Lands Administration
Mineral Owner:	School and Institutional Trust Lands Administration all minerals
Oil & Gas Lease:	ML-45691
Oil & Gas Lessee:	River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease:	ML-43170
Coal Lessee:	Arjay Oil Company
Other Minerals Lessee:	None

TRACT 3

Surface Owner:	United States of America
Mineral Owner:	United States of America all minerals
Oil & Gas Lease:	UTU-70219
Oil & Gas Lessee:	River Gas Corporation, Texaco Exploration and Production Inc.
Coal Lease:	Not leased
Coal Lessee:	Not applicable
Other Minerals Lessee:	None

TRACT 4

Surface Owner:	Carbon County
Mineral Owner:	Carbon County mineral less oil and gas; United States of America oil and gas only.
Oil & Gas Lease:	UTU-72470
Oil & Gas Lessee:	River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease:	Not leased
Coal Lessee:	Not applicable
Other Minerals Lessee:	None

TRACT 5

Surface Owner: United States of America
Mineral Owner: United States of America all minerals
Oil & Gas Lease: UTU-72470
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None

TRACT 6

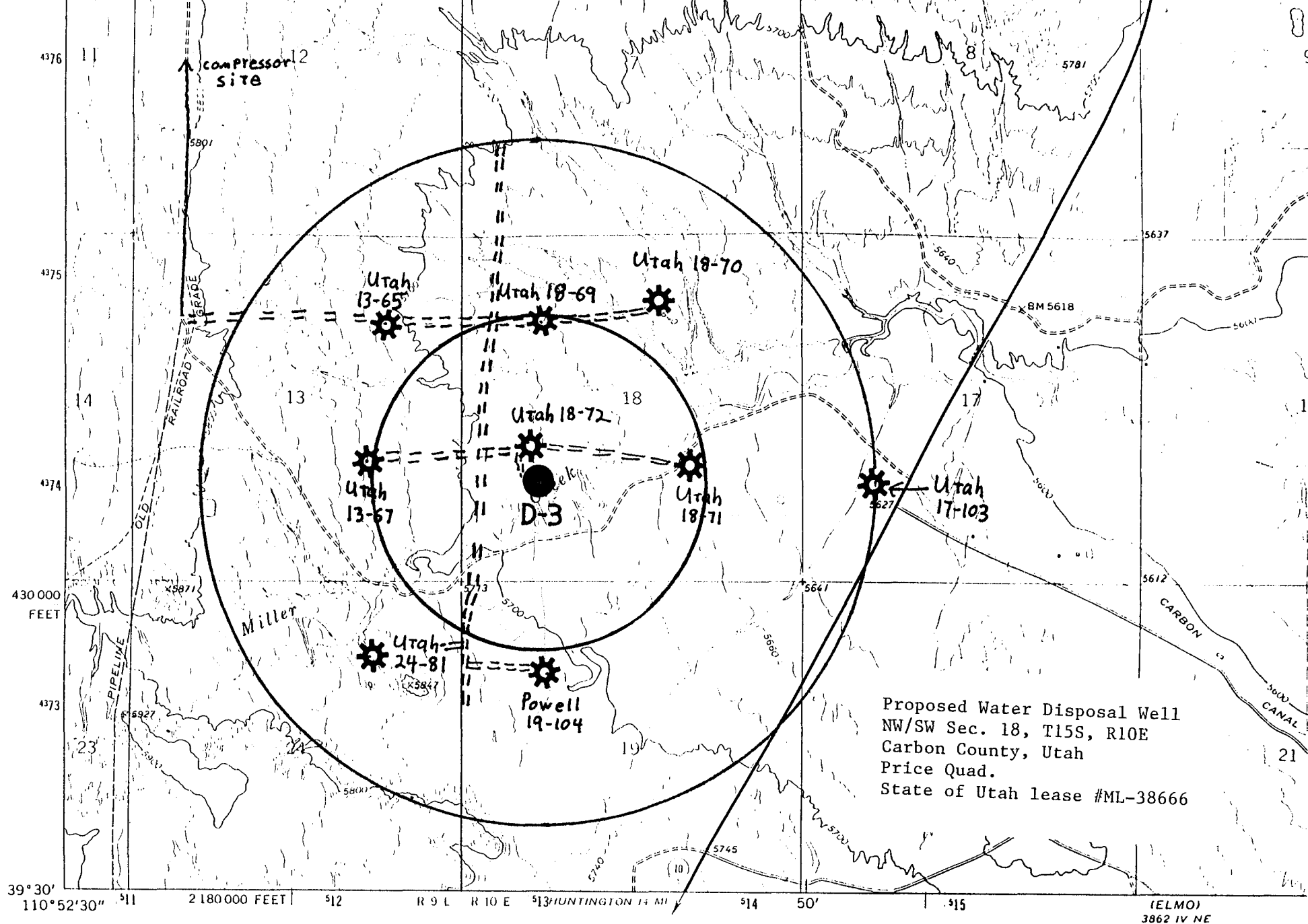
Surface Owner: Harvey Clayton Smith
Mineral Owner: Harvey Clayton Smith coal rights only; United States of America oil and gas only; Carbon County all other minerals
Oil & Gas Lease: UTU-72377
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None

TRACT 7

Surface Owner: Harvey Clayton Smith
Mineral Owner: Harvey Clayton Smith coal rights only; United States of America oil and gas only; Carbon County all other minerals
Oil & Gas Lease: UTU-72470
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None

TRACT 8

Surface Owner: School and Institutional Trust Lands Administration
Mineral Owner: School and Institutional Trust Lands Administration all minerals
Oil & Gas Lease: ML-38666
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: ML-43171
Coal Lessee: Arjay Oil Company
Other Minerals Lessee: None



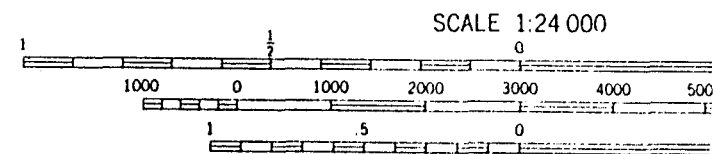
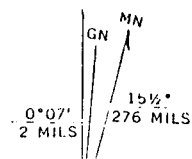
Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1972. Field checked 1972

Projection and 10,000-foot grid ticks: Utah coordinate system, central zone (Lambert conformal conic) 1000-metre Universal Transverse Mercator grid ticks,

ATTACHMENT 4



NATIONAL GEODETIC VERTICAL DATUM OF

(POISON SPRING BENCH)
3862 IV NW



State of Utah
Division of Oil, Gas & Mining (OGM)

**ON-SITE PREDRILL EVALUATION AND REVIEW
FOR
APPLICATION FOR PERMIT TO DRILL (APD)**

OPERATOR:

River Gas Corporation

WELL NO:

Utah D - 3

LEASE NO:

ML - 38666

API No:

43-007-30290

LEASE TYPE:

State ☒

Fee ☐

PROPOSED LOCATION

$\frac{1}{4}/\frac{1}{4}$:

NW SW

SECTION:

18

TOWNSHIP:

15 S

RANGE:

10 E

COUNTY:

Carbon

FIELD:

Drunkards Wash (048)

SURFACE:

1600 FSL 1126 FWL

BOTTOM HOLE:

Same as above

GPS COORDINATES:

513009 E 4374074 N

NAVA

SURFACE OWNER:

State of Utah

SURFACE AGREEMENT:

Yes ☒

No ☐

CONFIDENTIAL:

Yes ☒

No ☐

LOCATING AND SITING:

☒ X

UAC R649-2-3.

Unit

Drunkards Wash

☐ UAC R649-3-2. General

☐ UAC R649-3-3. Exception

☐ UCA 40-6-6. Drilling Unit

--

Cause No.

DRILLING PROGRAM:

The following information is included in the Application for Permit to Drill submitted.

1. Surface Formation and Estimated Tops/Geologic Markers
2. Estimated Depths and Names of Anticipated Water, Oil, Gas or other Mineral Bearing Formations

(All fresh water sands encountered during drilling shall be recorded and reported to the Division on Form 7.)
3. Well Control Equipment & Testing Procedures
4. Proposed Casing and Cementing Program
5. Mud Program, Circulating Medium, and Monitoring equipment
6. Coring, Testing, and Logging Program
7. Expected Bottom Hole Pressures and any anticipated Abnormal Pressures, Temperatures or Potential Hazards such as hydrogen sulfide, expectations and contingency plans for mitigating identified hazards
8. Any other information relative to the proposed operation.

Onsite Participants:

Larry Jensen, Steve Prince, Billy Stacy, Randy Nairemore, Jim Thompson, Mike
Hebertson

Regional Setting/Topography:

This area is in the valley area of the East Central WASATCH Thrust Belt Uplift and
the Northwest side of the San Rafael Swell. There are moderately incised stream
channels, flat mesas with steep talus slopes and high sandstone cliffs.

SURFACE USE PLAN:

Current Surface Use: Livestock grazing.

Proposed Surface Disturbance: Location and access road approximately 6.8 acres

1. Existing Roads State Highway 10 south of Price, about three miles. West
about 1 mile. The well is located on the south of the existing field road.
2. Planned Access Roads - include length of new road, length of existing road to
be upgraded, maximum disturbed and travel surface widths, maximum grades,
turnouts, surface materials, drainage, cattleguards. The road will be about
175 feet long and run in a southerly direction from the main field access
road.
3. Location of existing wells within one-mile radius of proposed location,
include water, injection, producing, drilling with present status of each well
See the attached map made part of the APD.
4. Location of Production Facilities and Pipelines see the map attached as part
of the APD.
5. Location and Type of Water Supply (include Division of Water Rights approval
or identifying number) City of Price
6. Source of Construction Material. Natural spoil and borrow from the location
7. Waste Management Plan. See the plan attached to the APD.
8. Ancillary Facilities. None
9. Well Site Layout. See the plat submitted as part of the APD.
10. Surface Restoration Plans. The surface will be restored as stipulated by the
State of Utah at the time of abandonment.

ENVIRONMENTAL PARAMETERS:

Affected Floodplain and/or Wetlands:

A 404 dredge and fill permit may be required if this site is in or adjacent to a wetland or other established drainage or floodplain. (Contact the Army Corps of Engineers if there are concerns of this nature). Yes. See the attached letter from the regional engineer. No permit required.

Flora/Fauna:

Briefly describe the flora found on the proposed site and the fauna evidenced or sighted on or near the proposed location. Deer, rabbits, coyote, cattle, possible raptor hunting area, cactus, greasewood, sagebrush.

SURFACE GEOLOGY

Soil Type and Characteristics: Clay and sand with possible gravel lenses.

Surface Formation & Characteristics: Mancos shale weathering to a light tan to reddish brown. Degrades to clay with sand and gravel from the overlying sandstone.

Erosion/Sedimentation/Stability: A small tertiary drainage will be rerouted to the south and joined with the main wash. The required cut will be about 10 feet and will run along the west edge of the location.

Paleontological Potential Observed: None.

RESERVE PIT

Characteristics: 75 X 75 X 8 and will be placed on the East side of the location. A second pit 220' X 220' will be used for emergency water production.

Lining (Site ranking form attached): A liner will be required.

OTHER OBSERVATIONS

Cultural Resources/Archaeology (if proposed location is on State land, has an archaeology clearance been obtained?): The archaeology report has been filed.

Comments: The rerouted drainage was discussed and the position of the actual pad was shifted 150 East and 200 feet North to give greater stability to the West side of the location.

M. Hebertson & J. Thompson
OGM Representative

6-Feb-1996 10:00 AM
Date and Time

STATEMENTS OF BASIS

OGM Review of Application for Permit to Drill (APD)

Company: River Gas Corporation

Well Name: Utah D-3

ENGINEERING/LOCATING and SITING:

The proposed location meets the location and siting requirements of R649-2-3. The application and proposed casing program, cementing program, drilling program, blowout preventer and monitoring and cement engineering plans appear to be consistent with accepted industry standards of practice and sound engineering design. A casing design safety check is attached.

Signature: F. R. Matthews Date: 02/14/96

GEOLOGY/GROUND WATER:

The well is being drilled for injection of produced water. It will be spud in the Cretaceous Mancos and be drilled through the Jurassic Kayenta Formation. The proposed zone for injection is the Navajo Formation. Water of various quality may be encountered in the Ferron Sandstone and the Kayenta. Formation. The proposed casing and cement program will adequately protect any water encountered.

Signature: D. Jarvis Date: 2/14/96

SURFACE:

The onsite inspection was conducted in accordance with Division procedures. The position of the pad was shifted to accommodate better stability on the west and south sides of the location due to the proximity of the natural drainage system. A berm will be placed at the base of the location pad to prevent runoff from the location to the Natural drainage on the West and South of the pad. The access road was changed from the northwest corner of the location to the northeast corner of the location. A pit liner for the drilling pit will be required due to the nature of the soils and produced fluids.

Signature: M. Hebertson and J. Thompson Date: 7-Feb-1996

STIPULATIONS for APD Approval:

1. The location will be shifted 200' North and 150 East, to accommodate the natural Drainage system.
2. A berm will be constructed at the toe of the cut and fill slopes on the west and south to prevent runoff from the location to the adjacent drainages.
3. The access road will enter location from the Northeast corner.
4. A liner will be required for the reserve pit.

ATTACHMENTS:

1. Photos will be placed on file.

**Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements**

Site-Specific Factors	Ranking Score	Final Ranking Score
Distance to Groundwater (feet) >200 100 to 200 75 to 100 25 to 75 <25 or recharge area	0 5 10 15 20	0
Distance to Surf. Water (feet) >1000 300 to 1000 200 to 300 100 to 200 < 100	0 2 10 15 20	10
Distance to Nearest Municipal Well (feet) >5280 1320 to 5280 500 to 1320 <500	0 5 10 20	0
Distance to Other Wells (feet) >1320 300 to 1320 <300	0 10 20	10
Native Soil Type Low permeability Mod. permeability High permeability	0 10 20	0

Fluid Type Air/mist Fresh Water TDS >5000 and <10000 TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	0 5 10 15 20	0
Drill Cuttings Normal Rock Salt or detrimental	0 10	0
Annual Precipitation (inches) <10 10 to 20 >20	0 5 10	0
Affected Populations <10 10 to 30 30 to 50 >50	0 6 8 10	0
Presence of Nearby Utility Conduits Not Present Unknown Present	0 10 15	10

Final Score	30
--------------------	-----------

The summation of all of the above ranking scores will yield one value which shall be used to determine the appropriate type of containment, on a case-by-case basis. The sensitivity levels are as follows:

Level I Sensitivity: For scores totaling ≥ 20
Level II Sensitivity: For scores totaling 15 to 19
Level III Sensitivity: For scores totaling < 15

Containment Requirements According to Sensitivity Level

Level I: Requires total containment by synthetic liner, concrete structure or other type of total containment structure or material.

Level II: Bentonite or other compatible lining is discretionary depending on the fluid to be contained and environmental sensitivity.

Level III: No specific lining requirements.

OTHER GUIDELINES FOR PITS

1. Unlined pits shall not be constructed on areas of fill materials.
2. A pit shall not be constructed in a drainages or floodplain of flowing or intermittent streams.
3. Synthetic liners used for lining reserve pits, shall be of 12 mil thickness or greater and shall be compatible with the fluid to be contained. Synthetic liners used for lining onsite pits with a longer expected life shall be a minimum of 30 mil thickness or as approved by the Division.
4. Synthetic liners shall be installed over smooth fill material which is free of pockets, loose rocks or other materials which could damage the liner.
5. Monitoring systems for pits or closed mud systems may be required for drilling in sensitive areas.

6. Lease Designation and Serial Number
ML-38666

7. Indian Allottee or Tribe Name

8. Unit or Communitization Agreement

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other (specify) Water Disposal Well

9. Well Name and Number
Utah D-3

2. Name of Operator
River Gas Corporation

10. API Well Number
~~15-007-30339~~
Not yet assigned

3. Address of Operator
511 Energy Center Blvd. Northport, Al. 35476

4. Telephone Number
205-759-3282

11. Field and Pool, or Wildcat
Drunkards Wash

5. Location of Well

Footage : 1600' FSL, 1126' FWL

County : Carbon

CQ. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E

State : UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other <u>Revision of Surface Facility Layout</u> | |

Approximate Date Work Will Start ASAP

SUBSEQUENT REPORT (Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other | |

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

14. I hereby certify that the foregoing is true and correct:

Name & Signature Terry D. Burns

Title Geologist

Date 02-06-96

(State Use Only)

JR Matthews Petroleum Engineer

2/14/96

Injection Application

State of Utah #D-3 Well

R649-5-2.2.6

The source of the water to be injected will be the coalbed methane wells currently operated in the Drunkards Wash field by River Gas Corporation. The estimated amount of water to be injected daily will be submitted once well analysis has been conducted.

UNICHEM

A Division of BJ Services

P.O. Box 217
Roosevelt, Utah 84068

Office (801) 722-5068
Fax (801) 722-5727

WATER ANALYSIS REPORT

COMPANY RIVER GAS ADDRESS _____ DATE 1-17-96

SOURCE American Quasar DATE SAMPLED 1-16-96 ANALYSIS NO. _____
31-01-DI Disposal Well Anaerobic Merckm Almond

1. PH	7.6		
2. H ₂ S (Qualitative)	1.0		
3. Specific Gravity	1.004		
4. Dissolved Solids		8,025	
5. Suspended Solids			
6. Anaerobic Bacterial Count	CI		CM
7. Methyl Orange Alkalinity (CaCO ₃)			
8. Bicarbonate (HCO ₃)	HCO ₃	5,300	+61 87 HCO ₃
9. Chlorides (Cl)	Cl	3,500	+25.5 99 Cl
10. Sulfates (SO ₄)	SO ₄	0	+48 0 SO ₄
11. Calcium (Ca)	Ca	64	+20 3 Ca
12. Magnesium (Mg)	Mg	22	+12.2 2 Mg
13. Total Hardness (CaCO ₃)		250	
14. Total Iron (Fe)		4.1	
15. Barium (Qualitative)			
16. Phosphate Residuals			

*MFI equivalents per liter

PROBABLE MINERAL COMPOSITION

Compound	Mol. Wt.	X	Mol	-	Mol
Ca(HCO ₃) ₂	81.04		3		243
CaSO ₄	58.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	72.17		2		146
MgSO ₄	60.19				
MgCl ₂	47.82				
NaHCO ₃	54.00		82		1,848
Na ₂ SO ₄	71.03				
NaCl	58.46		99		5,788

Saturation Values	Distilled Water 25°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,000 Mg/l
MgCO ₃	103 Mg/l

REMARKS Resistivity = .88 ohms/cm @ 71°F

CAL

NATURE SAVER™ FAX MEMO 81816

Date: 1/18/96 /ot pages 1

To: Allen Hunt From: Rockwell Christian

Co./Dept. _____ Co. _____

Phone # HERE IT IS!!! Phone # _____

Fax # 758-5209 Fax # 637-8924



RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)

February 8, 1996

Mr. Gil Hunt
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RE: Injection Application #D-3 Well

Dear Mr. Hunt:

Enclosed please find a schematic of the proposed D-3 casing program and a water analysis report as requested in your letter of Jan. 12, 1996.

I had hoped to be able to send along the affidavit of notice to owners and surface owners in the area at this time, but we have not completed the process. With luck I should be able to send that along sometime next week.

If I may be of assistance please do not hesitate to call.

Sincerely,

Callen Hurtt

FEB 13 1996

STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Operator: RIVER GAS CORP	Well Name: UTAH D-3
Project ID: 43-007-30290	Location: SEC. 18 - T15S - R10E

Design Parameters:

Mud weight (8.33 ppg) : 0.433 psi/ft
 Shut in surface pressure : 1844 psi
 Internal gradient (burst) : 0.140 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

Table 1. Properties of 6,300-psi concrete									
Length (feet)		Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost	
1	6,300	7.000	26.00	K-55	ST&C	6,300	6.151		
	Collapse Load Strgth S.F. (psi) (psi)			Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load Strgth S.F. (kips) (kips)		
1	2726	4320	1.585	2726	4980	1.83	163.80	364	2.22 J

Prepared by : MATTHEWS, Salt Lake City, Utah

Date : 02-14-1996

Remarks :

Minimum segment length for the 6,300 foot well is 1,500 feet.

SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 118°F (Surface 74°F , BHT 162°F & temp. gradient 1.400°/100 ft.)

String type: Production

The mud gradient and bottom hole pressures (for burst) are 0.433 psi/ft and 2,726 psi, respectively.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.07)

STATE OF UTAH, DIV OF OIL, GAS & MINERALS

Operator: RIVER GAS CORP	Well Name: UTAH D-3
Project ID:	Location: SEC. 18 - T15S - R10E

Design Parameters:

Mud weight (8.33 ppg) : 0.433 psi/ft
 Shut in surface pressure : 2533 psi
 Internal gradient (burst) : 0.065 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

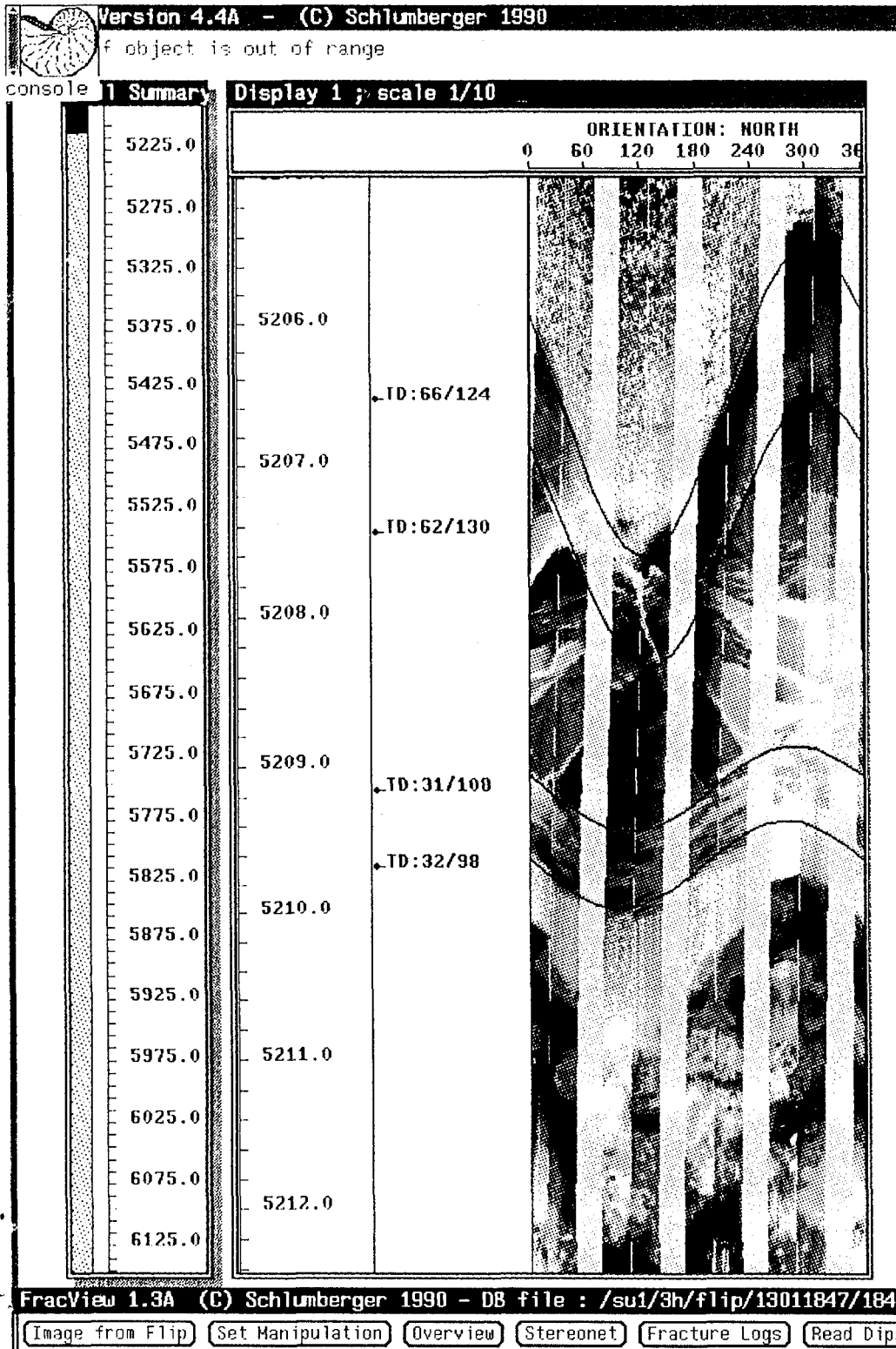
Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

Length (feet)		Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost	
1	3,500	9.625	36.00	J-55	ST&C	3,500	8.765		
	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	1515	2020	1.333	2762	3520	1.27	126.00	394	3.13 J

Prepared by : MATTHEWS, Salt Lake City, Utah
 Date : 02-14-1996
 Remarks :

Minimum segment length for the 3,500 foot well is 1,500 feet.
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 118°F (Surface 74°F , BHT 162°F & temp. gradient 1.400°/100 ft.)
 String type: Intermediate - Drlg
 Next string will set at 6,300 ft. with 9.00 ppg mud (pore pressure of 2,945 psi.) The frac gradient of 1.000 psi/ft at 3,500 feet results in an injection pressure of 3,500 psi Effective BHP (for burst) is 2,762 psi.
 The minimum specified drift diameter is 8.750 in.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - collapse (with evacuated casing), 1.0 - (uniaxial) burst, 1.8 - API 8rd tension, 1.6 - buttress tension, 1.5 - body yield tension, and 1.6 - EUE 8rd tension. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser.
 Costs for this design are based on a 1987 pricing model. (Version 1.07)



RIVER GAS CORP. DRUNKARD'S WASH D-3 WEL

Figure 5206 shows the base of an upper anhydrite and the top of a chaotic zone below, which has the borehole broke out beyond caliper determination, and therefore unreliable FMI images.

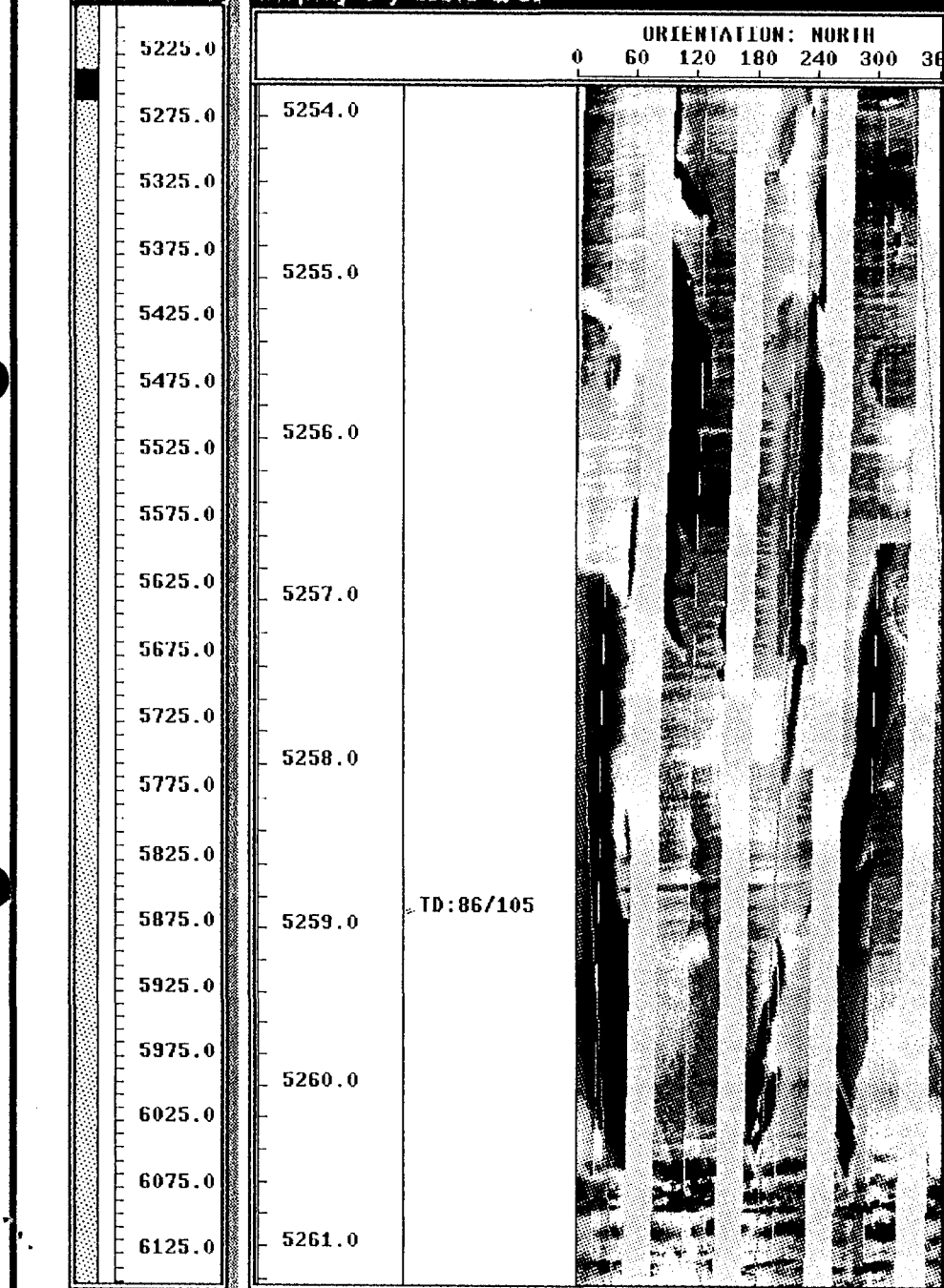


f object is out of range

console

Summary

Display 1 ; scale 1/10

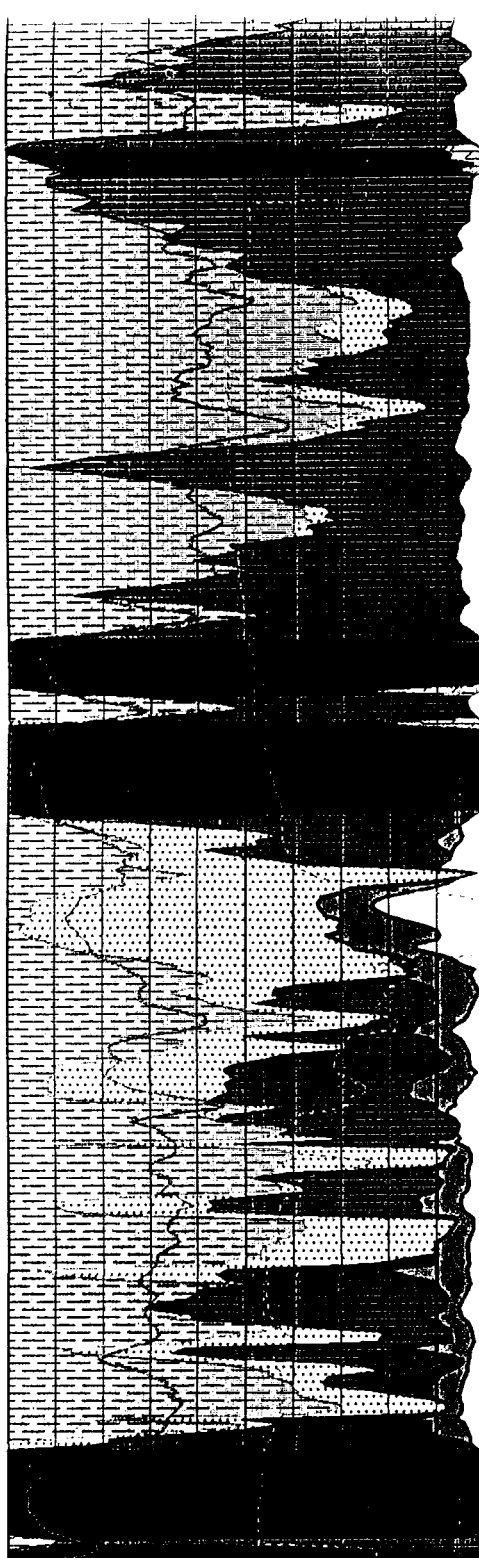


FracView 1.3A (C) Schlumberger 1990 - DB file : /su1/3h/flip/13011847/1847.

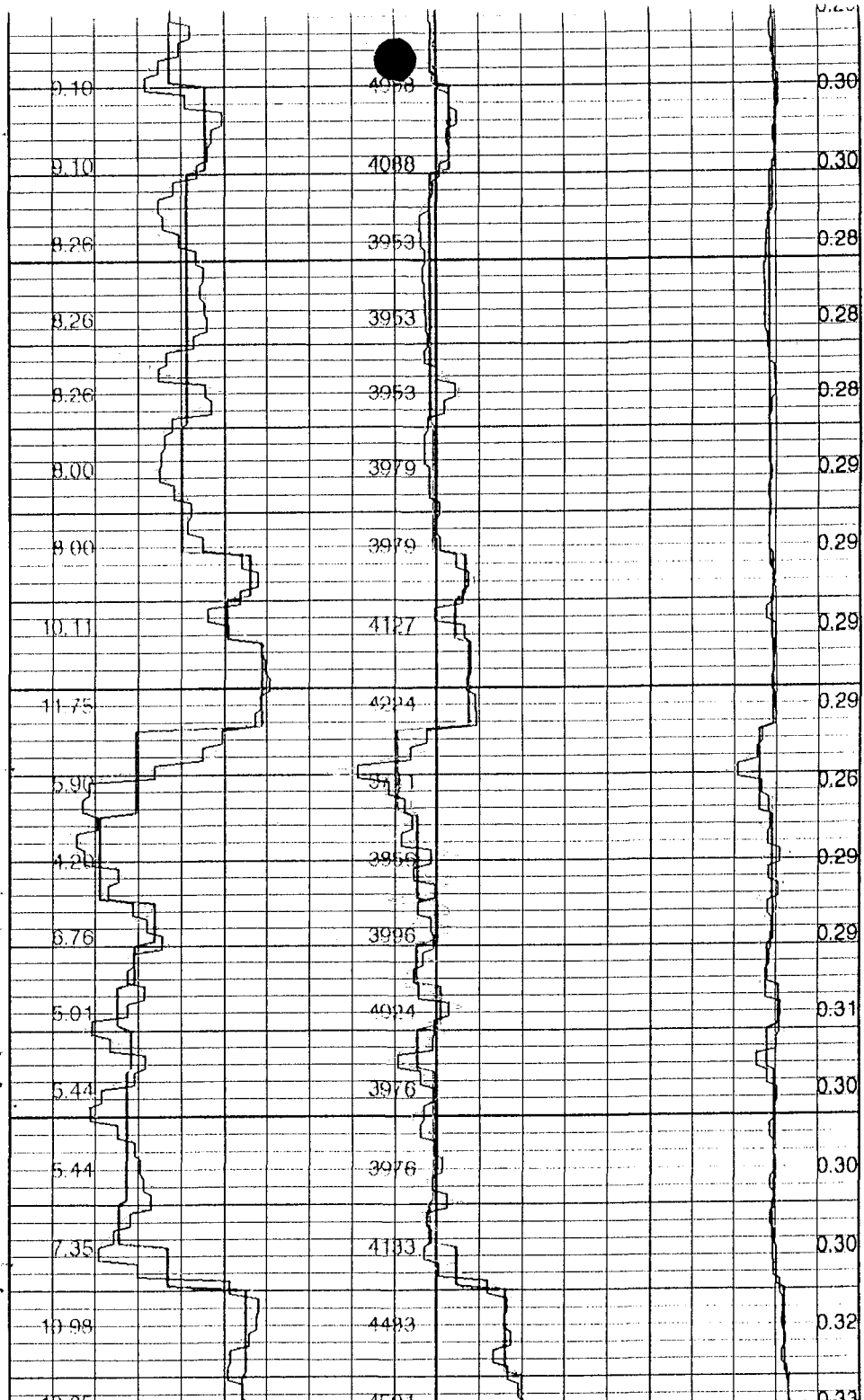
Image from Flip Set Manipulation Overview Stereonet Fracture Logs Read Dips

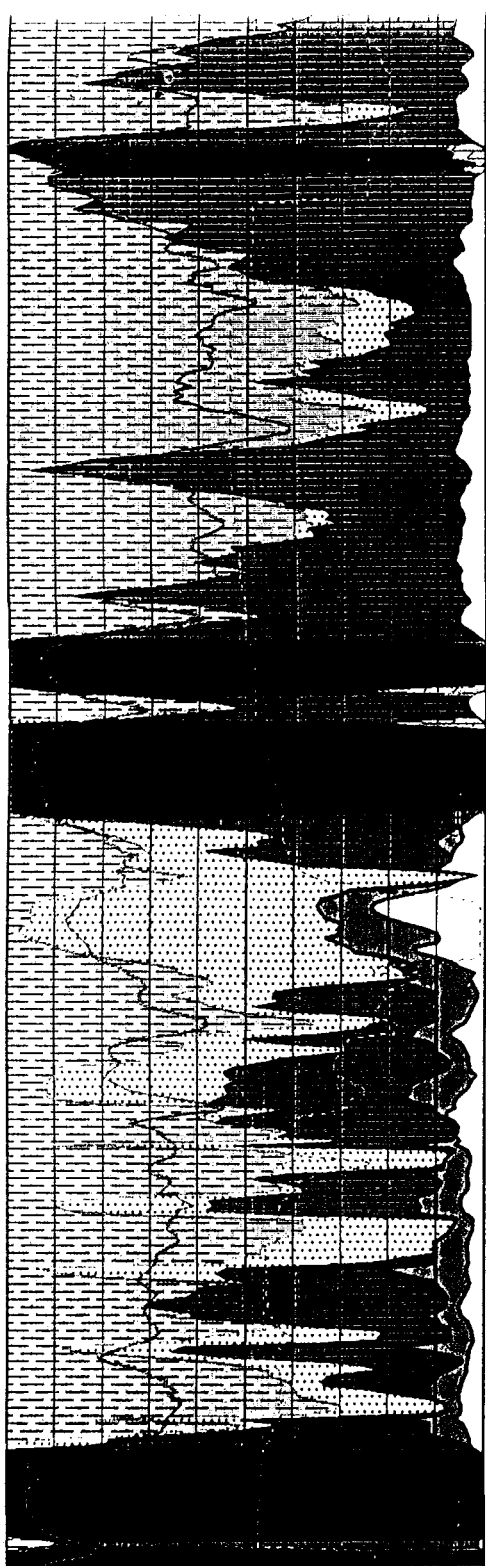
RIVER GAS CORP. DRUNKARD'S WASH D-3 WEL

Figure 5254 shows a somewhat near gauge interval below the broke-out and chaotic zone above. Large fracture gashes appear in the NE and SW portions and E and W portions of the hole which may not correspond to the same fractures. If they did, they would fit parallel NE-SW a striking fracture trend, which is consistent with the overall trend. On the continuous printout, rough fracture fits can be seen that approximate the NE-SW striking model. One posted at 5252 feet is a dip of 84 @ 160. Another posted at 5263.8 feet fits 78 @ 164 and just below 74 @ 203 degrees. An unpicked one bottoming at 5270 feet in another anhydrite suggests south dips and E-W strikes.



5200



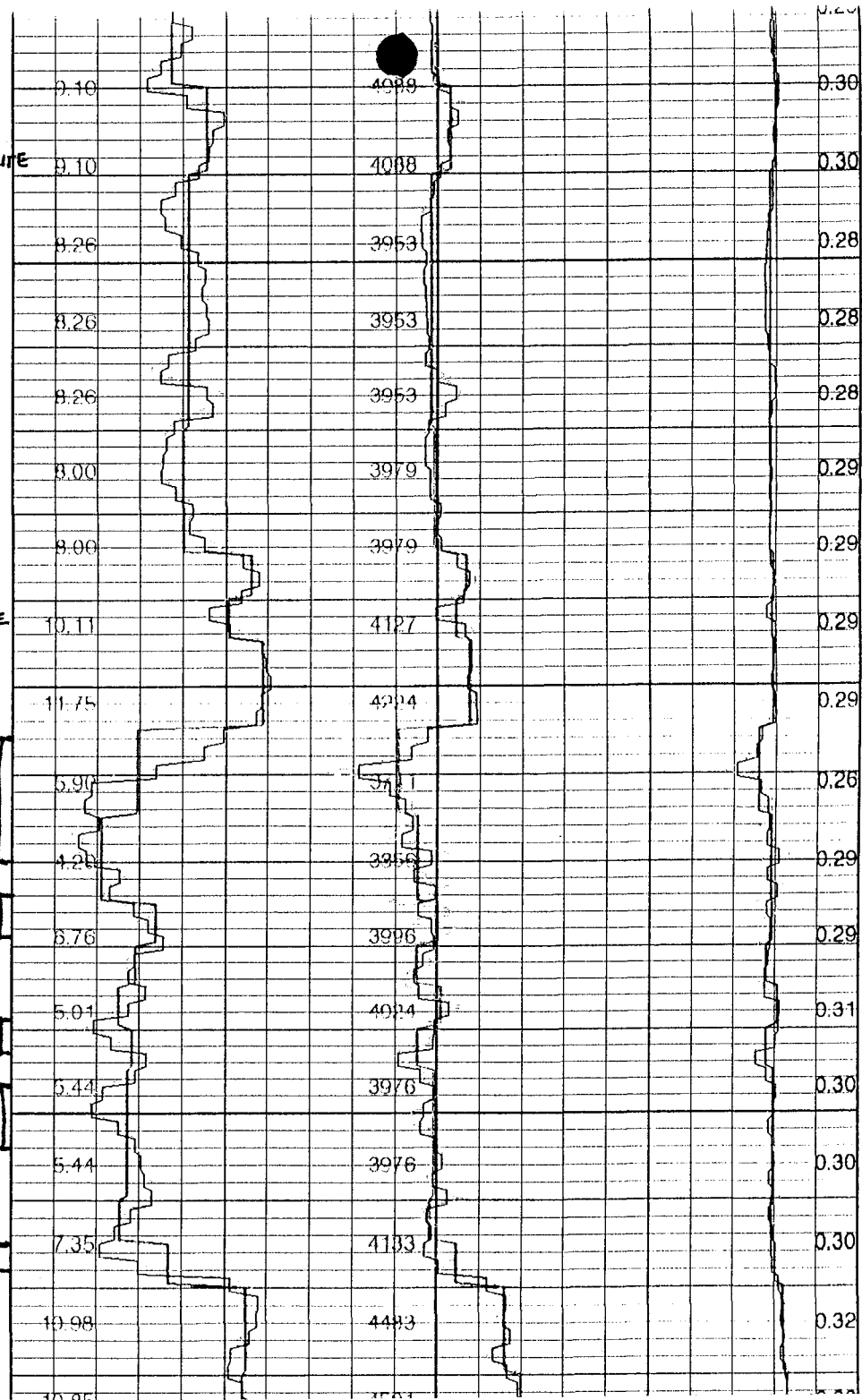


ANHYDRITE

ANHYDRITE

5200

Proposed
Perf.



9.10

4989

0.30

9.10

4088

0.30

8.26

3953

0.28

8.26

3953

0.28

8.26

3953

0.28

8.00

3979

0.29

8.00

3979

0.29

10.11

4127

0.29

11.75

4214

0.29

5.90

3976

0.26

4.28

3956

0.29

6.76

3996

0.29

5.01

4024

0.31

5.44

3976

0.30

5.44

3976

0.30

7.35

4133

0.30

10.98

4483

0.32



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

February 14, 1996

River Gas Corporation
511 Energy Center Blv.
Northport, Alabama 35476

Re: Utah D-3 Well, 1600' FSL, 1126' FWL, NW SW, Sec. 18, T. 15 S., R. 10 E.,
Carbon County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-30290.

Sincerely,

R. J. Firth
Associate Director

lwp

Enclosures

cc: Carbon County Assessor

Bureau of Land Management, Moab District Office

WAPD



Operator: River Gas Corpotation
Well Name & Number: Utah D-3
API Number: 43-007-30290
Lease: ML-38666
Location: NW SW Sec. 18 T. 15 S. R. 10 E.

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements

Notify the Division within 24 hours following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

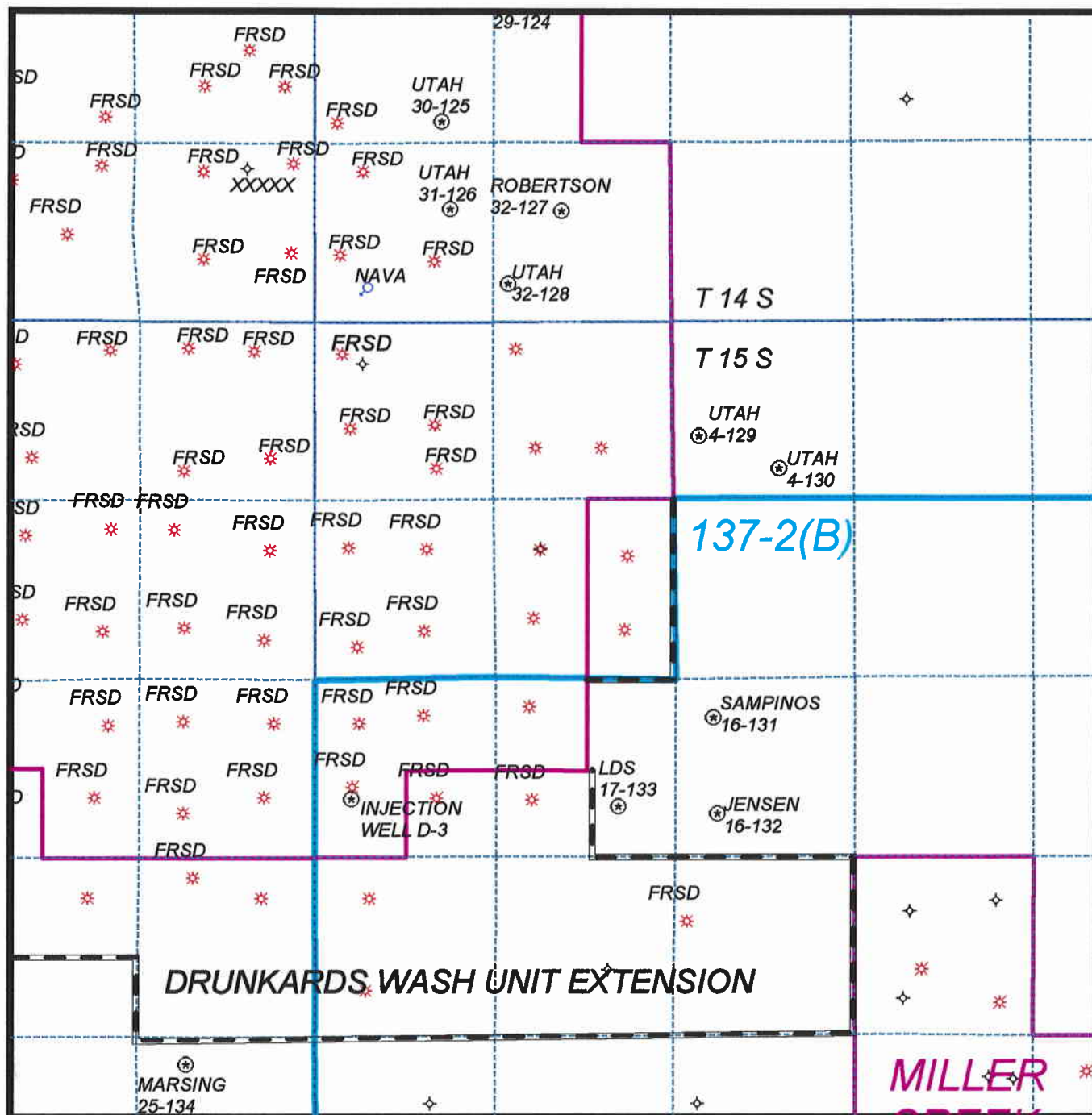
3. Reporting Requirements

All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. On-site Predrill Evaluation and Review

Compliance with all requirements and stipulations developed during the onsite evaluation and review.

RIVER GAS CORPORATION UTAH D-3 INJECTION WELL CARBON COUNTY UAC R649-2-3



SPACING:
UAC R649-2-3

PREPARED:
DATE: 16-FEB-96

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals

UTU67921X

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other (specify) Water Disposal Well

9. Well Name and Number
Utah D-3 43-007-3029

2. Name of Operator
River Gas Corporation

10. API Well Number
Not yet assigned

3. Address of Operator
511 Energy Center Blvd.; Northport, AL 35476

4. Telephone Number
(205) 759-3282

11. Field and Pool, or Wildcat
Drunkards Wash

5. Location of Well

Footage : 1600' FSL & 1126' FWL
QQ, Sec, T., R., M. : NW/SW Sec 18, T15S, R10E

County : Carbon
State : UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- | | |
|---|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other Revision of Casing Design | |

Approximate Date Work Will Start ASAP

SUBSEQUENT REPORT (Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other | |

Date of Work Completion

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Attached is a copy of the schematic of the revised well casing design.

REVISED CEMENTING PROGRAM:

Hole Size	Casing Size	Wght/ft	Setting Depth	Cement Quantity (est.)
17 1/2"	13 3/8"	48 lbs	500'	380 sx Class G, 15.8ppg
12 1/4"	9 5/8"	36 lbs	3500'	280 sx Hi-Lift, 11 ppg plus
				100 sx Class G, 15.8 ppg
8 3/4"	7"	26 lbs	6300'	Stage 1(bottom): 225 sx
				50/50 Poz, 12.5 ppg, and
				100 sx RFC, 14.2 ppg
				Stage 2 (Top): 190 sx 50/50
				Poz, 100sx RFC

FEB 16 1996

14. I hereby certify that the foregoing is true and correct:

Name & Signature Dennis Plowman

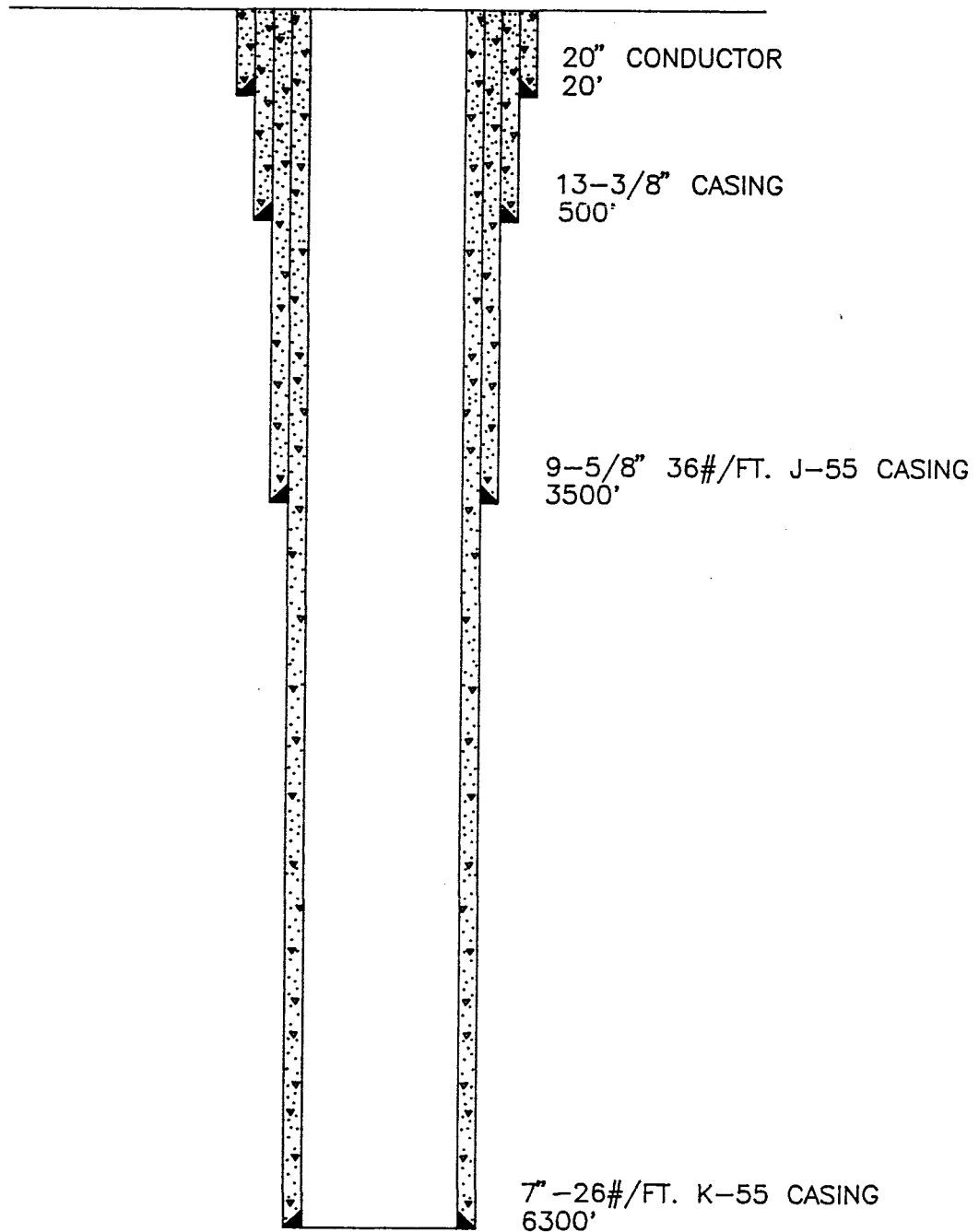
Dennis Plowman

Title Reservoir Technician Date 02/08/96

(State Use Only)

PROPOSED DISPOSAL WELL D-3

SEC. 18, T 15 S, R 10 E
(1600' FSL, 1126 FWL)
CARBON COUNTY, UTAH





Feb 10 1996

RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)

February 14, 1996

Mr. Gil Hunt
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

RE: Injection Application D-3 Well

Dear Mr. Hunt:

Enclosed please find the affidavit of notice to owners and surface owners in the area of the D-3 well. I believe the affidavit is the last item required to proceed with the public notice for this application.

If any previously submitted item is insufficient in any way I would be happy to supplement what we have supplied to you.

Please do not hesitate to call if I may be of any assistance .

Sincerely,

Callen Hurtt

STATE OF ALABAMA)
 : ss.
COUNTY OF TUSCALOOSA)

**AFFIDAVIT OF NOTIFICATIONS MAILED REGARDING PROPOSED DRILLING
OF A WELL AND TESTING FOR POSSIBLE USE AS AN INJECTION WELL**

JOSEPH L. STEPHENSON, being first duly sworn upon his oath,
deposes and states:

1. I am Vice President - Land of River Gas Corporation ("RGC"), an Alabama corporation duly authorized to transact business in the State of Utah, and am authorized to execute this Affidavit on behalf of said corporation.

2. As Vice President - Land, I am responsible for supervision of lease records, reviewing title records and legal opinions affecting lands where RGC proposes to conduct operations, and providing notice to certain parties that may be affected by proposed operations.

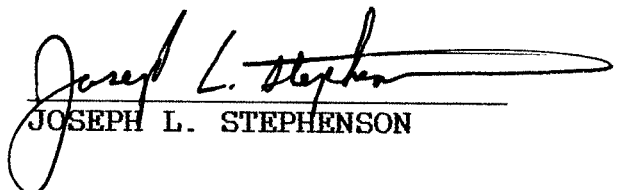
3. RGC proposes to drill a well on land owned by Utah's School and Institutional Trust Lands Administration in the NW1/4 of SW1/4 of Section 18, T15S, R10E, SLM, Carbon County, Utah. Upon completion of drilling the well, tests will be conducted to determine if the well can be utilized as an injection (water disposal) well.

4. Attached hereto as EXHIBIT "A" is a map showing the location of the proposed well, a 1/2 mile radius drawn around the proposed well, and the identification of ownership of the tracts within that 1/2 mile radius.


5. Attached hereto as EXHIBIT "B" is a listing of parties that received notice of the permit application which RGC submitted to the Division of Oil, Gas and Mining ("DOGM"), such notice sent by certified mail - return receipt, receipt of such notice being evidenced on return receipt cards. The letters sent to the parties on said list identified the tract(s) within the 1/2 mile radius of the proposed well in which said party owned an interest, the purpose of RGC drilling the well was stated, a copy of the Application for Injection Well was provided, the address and telephone number for the DOGM was provided in the event the party had a question on the permitting of the well, and RGC offered to provide said parties with additional information associated with the Application for Injection Well if the party made a written request to RGC.

6. The matters stated herein are true of my own knowledge, except to any matters stated herein upon information and belief, and, as to those matters, I believe them to be true.

DATED this 14th day of February, 1996.


JOSEPH L. STEPHENSON

Subscribed, sworn and acknowledged to and by Joseph L. Stephenson before me this 14th day of February, 1996.


NOTARY PUBLIC
Residing at:
1429 20th Avenue East
Tuscaloosa, AL 35404

(SEAL)

My Commission Expires: 3/8/98

**River Gas Corporation
Proposed Well D-3
NW/SW, Section 18, T15S, R10E, SLM, Carbon
County, Utah
Operators, Owners, Surface Owners Within 1/2
Mile Radius of Proposed Injection Well**

Topo Map: Price, UT
Scale: 1" = 2000'

See schedule for Identification of Tract Owners

Exhibit Prepared by:

Joseph L. Stephenson 1/10/96

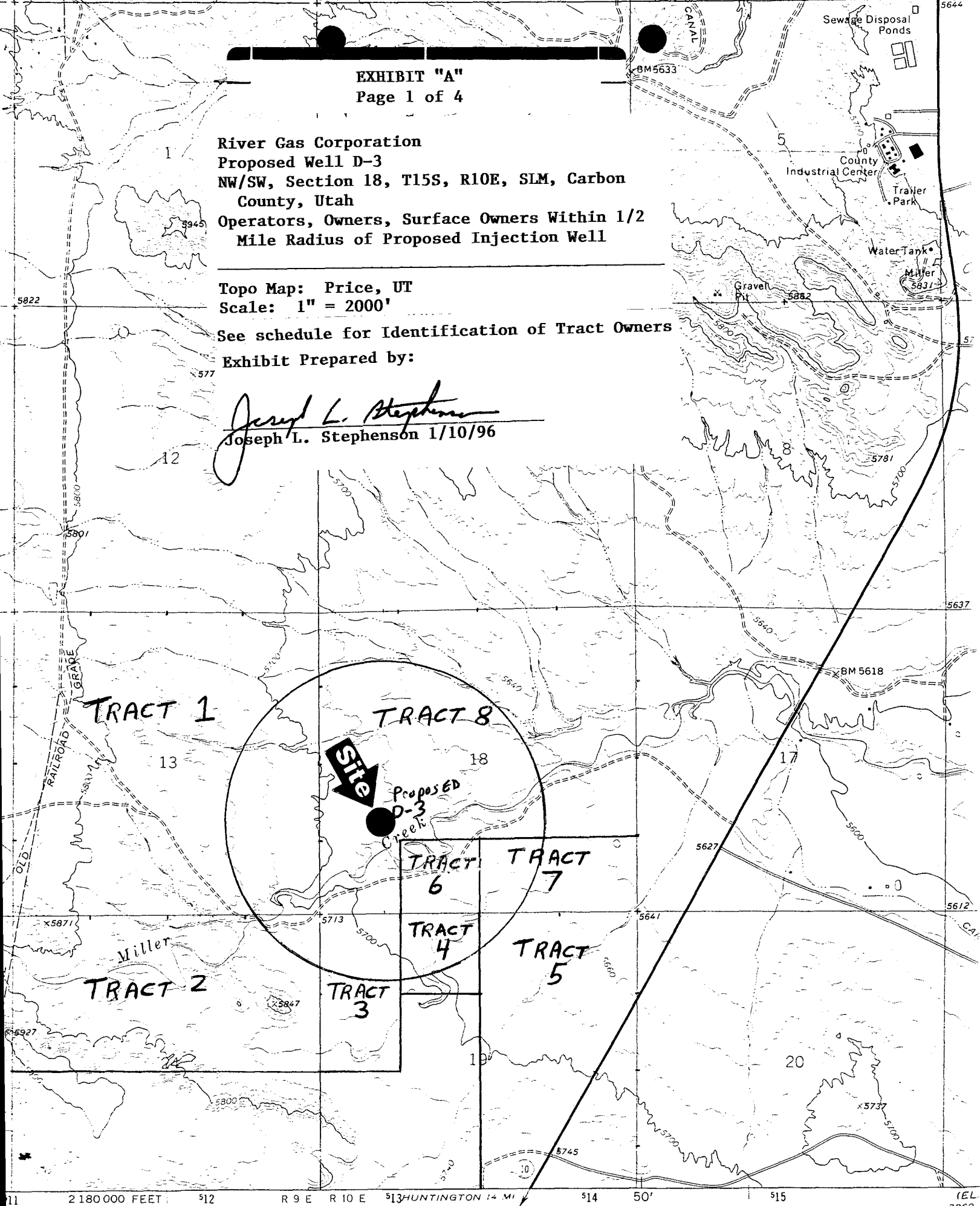


EXHIBIT "A"

Page 2 of 4

River Gas Corporation
Proposed Well D-3
NW/SW, Section 18, T15S, R10E, SLM
Carbon County, Utah
Operators, Owners, Surface Owners Within 1/2 Mile Radius

TRACT 1

Surface Owner: School and Institutional Trust Lands Administration
Mineral Owner: School and Institutional Trust Lands Administration
all minerals
Oil & Gas Lease: ML-39865
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and
Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: ML-43170
Coal Lessee: Arjay Oil Company
Other Minerals Lessee: None of record
Grazing Permittee: Steve Stamatakis, et al (GP-21727)
Oil & Gas Operator: River Gas Corporation

TRACT 2

Surface Owner: School and Institutional Trust Lands Administration
Mineral Owner: School and Institutional Trust Lands Administration
all minerals
Oil & Gas Lease: ML-45691
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and
Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: ML-43170
Coal Lessee: Arjay Oil Company
Other Minerals Lessee: None of record
Grazing Permittee: Boyd Marsing (GP-21308)
Oil & Gas Operator: River Gas Corporation

TRACT 3

Surface Owner: United States of America
Mineral Owner: United States of America all minerals
Oil & Gas Lease: UTU-70219
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and
Production Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None of record
Grazing Permittee: None of record
Oil & Gas Operator: River Gas Corporation

EXHIBIT "A"

Page 3 of 4

TRACT 4

Surface Owner: Carbon County
Mineral Owner: Carbon County mineral less oil and gas; United States of America oil and gas only.
Oil & Gas Lease: UTU-72470
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None of record
Grazing Permittee: None of record
Oil & Gas Operator: River Gas Corporation

TRACT 5

Surface Owner: United States of America
Mineral Owner: United States of America all minerals
Oil & Gas Lease: UTU-72470
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None of record
Grazing Permittee: None of record
Oil & Gas Operator: River Gas Corporation

TRACT 6

Surface Owner: Harvey Clayton Smith
Mineral Owner: Harvey Clayton Smith coal rights only; United States of America oil and gas only; Carbon County all other minerals
Oil & Gas Lease: UTU-72377
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None of record
Grazing Permittee: None of record
Oil & Gas Operator: River Gas Corporation

EXHIBIT "A"

Page 4 of 4

TRACT 7

Surface Owner: Harvey Clayton Smith
Mineral Owner: Harvey Clayton Smith coal rights only; United States of America oil and gas only; Carbon County all other minerals
Oil & Gas Lease: UTU-72470
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: Not leased
Coal Lessee: Not applicable
Other Minerals Lessee: None of record
Grazing Permittee: None of record
Oil & Gas Operator: River Gas Corporation

TRACT 8

Surface Owner: School and Institutional Trust Lands Administration
Mineral Owner: School and Institutional Trust Lands Administration all minerals
Oil & Gas Lease: ML-38666
Oil & Gas Lessee: River Gas Corporation, Texaco Exploration and Production Inc., Dominion Reserves-Utah, Inc.
Coal Lease: ML-43171
Coal Lessee: Arjay Oil Company
Other Minerals Lessee: None of record
Grazing Permittee: Boyd Marsing (GP-22930)
Oil & Gas Operator: River Gas Corporation

EXHIBIT "B"

Page 1 of 2

River Gas Corporation
Proposed Well D-3
NW/SW, Section 18, T15S, R10E, SLM
Carbon County, Utah
Notification to Parties Within 1/2 Mile Radius
Page 1 of 2

Arjay Oil Company
ATTENTION: Mr. R. J. Hollberg, Jr.
President
P. O. Box 904
Salt Lake City, UT 84110

CERTIFIED MAIL P-521-852-893
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/26/96

Carbon County
ATTENTION: Carbon County Commission
Carbon County Courthouse
100 East Main Street
Price, UT 84501

CERTIFIED MAIL P-521-852-894
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/24/96

Mr. Boyd Marsing
P. O. Box 806
Price, UT 84501

CERTIFIED MAIL P 521 852 717
LETTER DATED JANUARY 24, 1996
RECEIVED: 1/29/96

Dominion Reserves-Utah, Inc.
ATTENTION: Mr. G. E. Lake, Jr.
Vice President
Riverfront Plaza, West Tower
901 E. Byrd Street
Richmond, VA 23261

CERTIFIED MAIL P-521-852-895
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/22/96

River Gas Corporation
ATTENTION: Joseph L. Stephenson
Vice President - Land
511 Energy Center Blvd.
Northport, AL 35476

NOT APPLICABLE...RGC
ORIGINATED NOTICES TO THE
OTHER PARTIES

Harvey Clayton Smith
3570 South 3310 West
Salt Lake City, UT 84119

CERTIFIED MAIL P-521-852-892
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/24/96

Mr. Steve Stamatakis
2676 Gordon Creek Road
Price, UT 84501

CERTIFIED MAIL P 521 852 718
LETTER DATED JANUARY 24, 1996
RECEIVED: 1/29/96

Texaco Exploration and Production Inc.
ATTENTION: Mr. J. R. French, Jr.
Denver Division
P. O. Box 2100
Denver, CO 80201

CERTIFIED MAIL P-521-852-712
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/22/96

Exhibit Prepared by:


Joseph L. Stephenson 2/14/96

EXHIBIT "B"

Page 2 of 2

River Gas Corporation
Proposed Well D-3
NW/SW, Section 18, T15S, R10E, SLM
Carbon County, Utah
Notification to Parties Within 1/2 Mile Radius
Page 2 of 2

United States of America
U. S. Department of the Interior
Bureau of Land Management
Moab District Office
P. O. Box 970
Moab, UT 84532

CERTIFIED MAIL P-521-852-713
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/24/96

United States of America
U. S. Department of the Interior
Bureau of Land Management
Price Resource Area
900 North 700 East
Price, UT 84501

CERTIFIED MAIL P-521-852-714
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/24/96

United States of America
U. S. Department of the Interior
Bureau of Land Management
324 South State, Suite 301
Salt Lake City, UT 84111-2303

CERTIFIED MAIL P-521-852-715
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/25/96

Utah School and Institutional
Trust Lands Administration
ATTENTION: Mr. Edward W. Bonner
Mineral Resources Specialist
3 Triad Center, Suite 400
355 West North Temple
Salt Lake City, UT 84180-1204

CERTIFIED MAIL P-521-852-716
LETTER DATED JANUARY 12, 1996
RECEIVED: 1/24/96

BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH

---ooOoo---

IN THE MATTER OF THE
APPLICATION OF RIVER GAS
CORPORATION FOR
ADMINISTRATIVE APPROVAL OF
THE D-3 WELL LOCATED IN
SECTION 18, TOWNSHIP 15
SOUTH, RANGE 10 EAST, S.L.M.,
CARBON COUNTY, UTAH, AS A
CLASS II INJECTION WELL

: NOTICE OF AGENCY
ACTION

: CAUSE NO. UIC-166

---ooOoo---

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of River Gas Corporation for administrative approval of the D-3 well, to be drilled in Section 18, Township 15 South, Range 10 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

The estimated injection intervals from 4300 feet to 5000 feet (Entrada Formation) and from 5600 feet to 6100 feet (Navajo Formation) will be selectively perforated and tested prior to water injection. The maximum injection pressure and rate will be determined by step rate testing after completion of the well.

Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 21st day of February 1996.

STATE OF UTAH
DIVISION OF OIL, GAS & MINING


R. J. Firth
Associate Director, Oil & Gas



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

February 21, 1996

Newspaper Agency Corporation
Legal Advertising
Tribune Building, Front Counter
143 South Main
Salt Lake City, Utah 84111

Re: Notice of Agency Action - Cause No. UIC-166

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Lisha Cordova
Administrative Analyst

Enclosure





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

February 21, 1996

Sun Advocate
P. O. Box 870
76 West Main
Price, Utah 84501

Re: Notice of Agency Action - Cause No. UIC-166

Gentlemen:

Enclosed is a copy of the referenced Notice of Agency Action. Please publish the Notice, once only, as soon as possible. Please send proof of publication and billing to the Division of Oil, Gas and Mining, 355 West North Temple, 3 Triad Center, Suite 350, Salt Lake City, Utah 84180-1203.

Sincerely,

Lisha Cordova
Administrative Analyst

Enclosure



**River Gas Corporation
D-3 Well
Cause No. UIC-166**

Publication Notices were sent to the following:

Newspaper Agency Corporation
Legal Advertising
Tribune Building, Front Counter
143 South Main
Salt Lake City, Utah 84111

Sun Advocate
P. O. Box 870
76 West Main
Price, Utah 84501

Bureau of Land Management
P. O. Box 7004
125 South 600 West
Price, Utah 84501

River Gas Corporation
511 Energy Center Boulevard
Northport, Alabama 35476

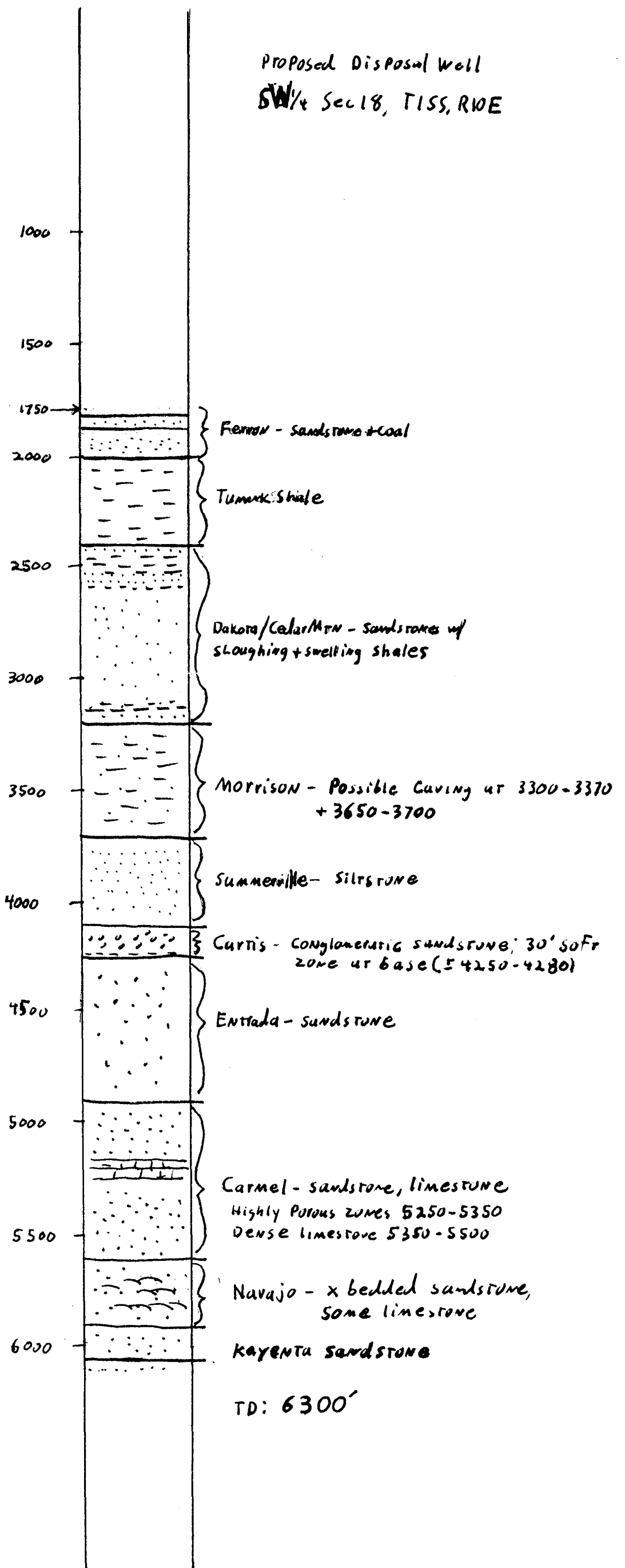
U.S. Environmental Protection Agency
Region VIII
Attn. Dan Jackson
999 18th Street
Denver, Colorado 80202-2466

Ed Bonner
School & Institutional Trust Lands Administration
3 Triad Center, Suite 400
Salt Lake City, Utah 84180-1203



Lisha Cordova
Administrative Analyst
February 21, 1996

Proposed Disposal Well
SW 1/4 Sec 18, T15S, R10E



143 SOUTH MAIN ST.
P.O. BOX 45838
SALT LAKE CITY, UTAH 84145
FED. TAX I.D. # 87-0217663

Newspaper Agency Corporation
The Salt Lake Tribune (NA) DESERET NEWS

CUSTOMER'S
COPY

PROOF OF PUBLICATION

CUSTOMER NAME AND ADDRESS	ACCOUNT NUMBER	
DIV OF OIL, GAS & MINING 355 WEST NORTH TEMPLE 3 TRIAD CENTER #350 SLC, UT 84180	D5385340L-07	02/27/96

ACCOUNT NAME	
DIV OF OIL, GAS & MINING	
TELEPHONE	INVOICE NUMBER
801-538-5340	TL2N8200861
SCHEDULE	
START 02/27/96 END 02/27/96	
CUST. REF. NO.	
UIC-166	
CAPTION	
NOTICE OF AGENCY ACTION CAUSE N	
SIZE	
74 LINES 1.00 COLUMN	
TIMES	RATE
1	1.64
MISC. CHARGES	AD CHARGES
.00	121.36
TOTAL COST	
121.36	

NOTICE OF AGENCY ACTION
CAUSE NO. UIC-166
BEFORE THE DIVISION OF OIL,
GAS AND MINING
DEPARTMENT OF NATURAL
RESOURCES, STATE OF UTAH

IN THE MATTER OF THE APPLICATION OF RIVER GAS CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE D-3 WELL LOCATED IN SECTION 18, TOWNSHIP 15 SOUTH, RANGE 10 EAST, S.L.M., CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL.

THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of River Gas Corporation for administrative approval of the D-3 well, to be drilled in Section 18, Township 15 South, Range 10 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R. 649-10, Administrative Procedures.

The estimated injection intervals from 4300 feet to 5000 feet (Entrada Formation) and from 5600 feet to 6100 feet (Navajo Formation) will be selectively perforated and tested prior to water injection. The maximum injection pressure and rate will be determined by step rate testing after completion of the well.

Any persons desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

DATED this 21st day of February, 1996.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
R. J. Firth
Associate Director, Oil and Gas
2N820080

FUTURE

02/27/96

SCHEDULED ON

START 02/27/96 END 02/27/96

AFFIDAVIT OF PUBLICATION

WSPAPER AGENCY CORPORATION LEGAL BOOKKEEPER, I CERTIFY THAT THE ATTACHED PUBLICATION OF NOTICE OF AGENCY ACTION CAUSE N FOR DIV OF OIL, GAS & MINING WAS PUBLISHED BY THE NEWSPAPER AGENCY CORPORATION, AGENT FOR THE SALT LAKE TRIBUNE AND DESERET NEWS, DAILY NEWSPAPERS PUBLISHED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH.

SCHEDULED ON

START 02/27/96 END 02/27/96



W. Commeyan, Director
March 8, 1996
STATE OF UTAH

THIS IS NOT A STATEMENT BUT A "PROOF OF PUBLICATION"
PLEASE PAY FROM BILLING STATEMENT.

OFFICE COPY

AFFIDAVIT OF PUBLICATION

STATE OF UTAH)

SS.

County of Carbon,)

I, Kevin Ashby, on oath, say that I am the Publisher of the Sun Advocate, a twice-weekly newspaper of general circulation, published at Price, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 (One) consecutive issues, and that the first publication was on the 27th day of February, 1996 and that the last publication of such notice was in the issue of such newspaper dated the 27th day of February, 1996.

Kevin Ashby

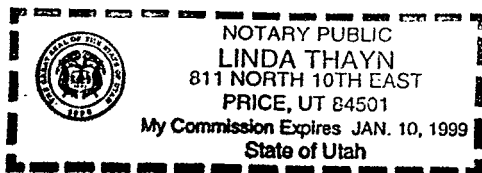
Kevin Ashby - Publisher

Subscribed and sworn to before me this 27th day of February, 1996.

Linda Thayne

Notary Public My commission expires January 10, 1999 Residing at Price, Utah

Publication fee, \$57.10



**NOTICE OF AGENCY ACTION
CAUSE NO. UIC-166**

**BEFORE THE DIVISION OF OIL, GAS AND MINING
DEPARTMENT OF NATURAL RESOURCES
STATE OF UTAH**

**IN THE MATTER OF THE APPLICATION OF RIVER GAS CORPORATION FOR ADMINISTRATIVE APPROVAL OF THE D-3 WELL LOCATED IN SECTION 18, TOWNSHIP 15 SOUTH RANGE 10 EAST, S.L.M. CARBON COUNTY, UTAH, AS A CLASS II INJECTION WELL
THE STATE OF UTAH TO ALL PERSONS INTERESTED IN THE ABOVE ENTITLED MATTER.**

Notice is hereby given that the Division of Oil, Gas and Mining (the "Division") is commencing an informal adjudicative proceeding to consider the application of River Gas Corporation for administrative approval of the D-3 well, to be drilled in Section 18, Township 15 South, Range 10 East, Carbon County, Utah, for conversion to a Class II injection well. The proceeding will be conducted in accordance with Utah Admin. R.649-10, Administrative Procedures.

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Any person desiring to object to the application or otherwise intervene in the proceeding, must file a written protest or notice of intervention with the Division within fifteen days following publication of this notice. If such a protest or notice of intervention is received, a hearing will be scheduled before the Board of Oil, Gas and Mining. Protestants and/or intervenors should be prepared to demonstrate at the hearing how this matter affects their interests.

Dated this 21st day of February 1996.

**STATE OF UTAH
DIVISION OF OIL, GAS & MINING
-s-R. J. Firth**

Associate Director, Oil & Gas

Published in the Sun Advocate February 27, 1996.

2871 REC Fed 6 PU ad 616

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: RIVER GAS CORP

Well Name: UTAH D-3

Api No. 43-007-30290

Section 18 Township 15S Range 10E County CARBON

Drilling Contractor CAZA

Rig # 16

SPUDDED: Date 2/27/96

Time

How ROTARY

Drilling will commence

Reported by GREG MUELLER

Telephone # 1-801-637-8876

Date: 2/28/96 Signed: MKH

FORM 8

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☐ OTHER: Disposal Well

2. Name of Operator: River Gas Corporation

3. Address and Telephone Number: 511 Energy Center Boulevard

4. Location of Well
Footage: 1600' FSL, 1126' FWL

DD, Spp., T., R., M.: Sec., 18, T15S, R10E

5. Lease Designation and Serial Number:

ML-38666

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

UTU67921X

8. Well Name and Number:

UTAH

9. API Well Number:

43-007-30290

10. Field and Pool, or Wildcat:

DRUNKARDS WASH

County: CARBON

State: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- ☐ Abandonment ☐ New Construction
☐ Casing Repair ☐ Pull or Alter Casing
☐ Change of Plans ☐ Recompletion
☐ Conversion to Injection ☐ Shoot or Acidize
☐ Fracture Treat ☐ Vent or Flare
☐ Multiple Completion ☐ Water Shut-Off
☐ Other

Approximate date work will start

SUBSEQUENT REPORT
(Submit Original Form Only)

- ☐ Abandonment ☐ New Construction
☐ Casing Repair ☐ Pull or Alter Casing
☐ Change of Plans ☐ Shoot or Acidize
☐ Conversion to Injection ☐ Vent or Flare
☐ Fracture Treat ☐ Water Shut-Off
☒ Other Change in BOP (see below)

Date of work completion Current

Report results of Multiple Completions and Recompletions to different reservoir on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)

After surface casing is set, (500') we propose to nipple-up a Class 2 AG type BOP with a spacer spool. This BOP will consist of a 13-5/8" - 2000# annular and 13-5/8" - 2000# rotating head. From past records, we have not experienced excessive pressure to the depths this BOP system will be used in.

After intermediate casing is set, (3500') a Class 3 RRAG type BOP will be installed. This BOP will consist of 11" blind rams, 11" pipe rams, 11" - 300 psi annular and an 11" - 3000 psi rotating head.

13.

Name & Signature:

Steve L. Prince

Title: Regulatory/Eng. Mgr Date: 3/1/96

(This space for State use only)

NATURE SAVER™ FAX MEMO 01616

Date: 3/1/96	# of pages: 2
To: Jim Thompson	From: Rochelle
Co./Dept: 3	Co.:
Phone #:	Phone #:
Fax #:	Fax #:

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

(See Instr)

DATE: 3/1/96

BY: *[Signature]*

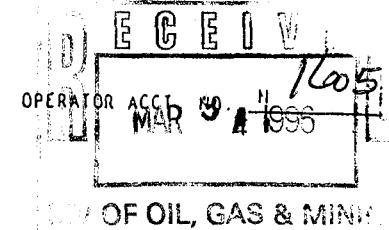
(1193)

(500')
After surface casing is set, we propose to nipple-up a
Class 2 AG type BOP with a spacer spool. This BOP will
consist of a $13\frac{5}{8}$ " - 2000# annular and $13\frac{5}{8}$ " - 2000#
rotating head. From past records, we had not experienced
excessive pressure to the depths this BOP system will be used.

After intermediate casing is set (3500'), a Class 3
RRAG type BOP will ^{be installed}. This BOP will consist of 11" blind rams,
11" pipe rams, 11" 3000 psi annular and a 11" 3000psi rotating head.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
ENTITY ACTION FORM - FORM 6

OPERATOR River Gas Corporation
ADDRESS 511 Energy Center Blvd.
Northport, AL 35476



ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	11256	→	43-007-30290	Utah D-3	NW/SW	18	15S	10E	Carbon	02/27/96	
WELL 1 COMMENTS: Entity added 35-96 (Drunkards Wash Unit). Lee											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

- ACTION CODES (See Instructions on back of form)
- A - Establish new entity for new well (single well only)
 - B - Add new well to existing entity (group or unit well)
 - C - Re-assign well from one existing entity to another existing entity
 - D - Re-assign well from one existing entity to a new entity
 - E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

Dennis Plowman
Signature Dennis Plowman
Reservoir Technician: 2/29/96
Title _____ Date _____
Phone No. 205, 759-3282

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED

MAR 7 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☐ OTHER: Disposal Well

2. Name of Operator: River Gas Corporation

3. Address and Telephone Number: 511 Energy Center Boulevard

4. Location of Well
Footages: 1600' FSL, 1126' FWL

OO, Sec., T., R., M.: Sec. 18, T15S, R10E

5. Lease Designation and Serial Number:

MI - 38666

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

UTU67921X

8. Well Name and Number:

UTAH

9. API Well Number:

43-007-30290

10. Field and Pool, or Wildcat:

DRUNKARDS WASH

County: CARBON

State: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other | |

Approximate date work will start

SUBSEQUENT REPORT
(Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other | Change in BOP (see below) |

Date of work completion Current

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

After surface casing is set, (500') we propose to nipple-up a Class 2 AG type BOP with a spacer spool. This BOP will consist of a 13-5/8" - 2000# annular and 13-5/8" - 2000# rotating head. From past records, we have not experienced excessive pressure to the depths this BOP system will be used in.

After intermediate casing is set, (3500') a Class 3 RRAG type BOP will be installed. This BOP will consist of 11" blind rams, 11" pipe rams, 11" - 300 psi annular and an 11" - 3000 psi rotating head.

13. Name & Signature: *Steve L. Prince*

Title: Regulatory/Eng. Mgr Date: 3/1/96

This space for State use only)

Matthew Petroleum Engineer 3/1/96

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number ML - 38666
7. Indian Allottee or Tribe Name
8. Unit or Communitization Agreement UTU67921X
9. Well Name and Number Utah D-3
10. API Well Number 43-007-30290
11. Field and Pool, or Wildcat Drunkards Wash

SUNDRY NOTICES AND REPORTS ON WELLS

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Use APPLICATION FOR PERMIT— for such proposals

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other (specify) Coalbed Methane
2. Name of Operator River Gas Corporation
3. Address of Operator 511 Energy Center Blvd. Northport, AL 35476
4. Telephone Number (205) 759-3282
5. Location of Well Footage : 1600' FSL & 1126' FWL OO, Sec. T., R., M. : NW/SW Sec 18, T15S, R10E
County : Carbon State : UTAH

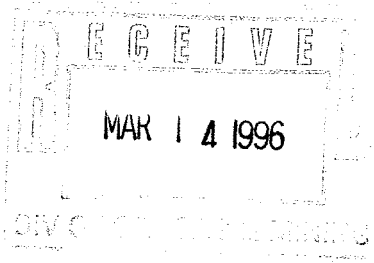
12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	
NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandonment <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other	<input type="checkbox"/> Abandonment <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input checked="" type="checkbox"/> Other Weekly Progress Report
<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recompletion <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off
Approximate Date Work Will Start _____	Date of Work Completion _____
Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. * Must be accompanied by a cement verification report.	

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See Attached

CONFIDENTIAL

14. I hereby certify that the foregoing is true and correct	
Name & Signature Dennis Plowman	Title Reservoir Technician
Date 3-8-96	



DAILY REPORT

RIVER GAS CORPORATION

D-3 (DISPOSAL WELL)

1600' FSL & 1126' FWL

NW/4 of SW/4 Sec. 18, T15S, R10E

Carbon County, Utah

Elevation: 6300'

API: 43-007-30290

Drilling Contractor: Bill Jr. Rathole Drilling

Page 1

02/28/96 Day 1. Present Operations: Prepare to start drilling. Current Depth: 80'. Depth drilled in 24 hrs: 80'. Drilling fluid: Air. Drilled 20' w/#1 26" Auger bit in $\frac{1}{2}$ hour. Drilled 20' to 80' w/#2 17-1/2" Mission bit in 2 hours. Total rotating hrs: 2-1/2. Spud Well 9:48am, 2/27/96. Set 1 jnt 20" structural conductor csg @ 20' in a 26" conductor borehole. Daily Costs: \$4150.00. Cumulative Costs: \$4150.00.

02/29/96 Day 2. Present Operation: Drilling. Current Depth: 225'. Depth drilled in 24 hrs: 145'. Drilling fluid: Air, 210PSI, & 1200-1400 cfm. Drilled 20' 225' w/#2 17-1/2" mission hammer bit in 13-1/2 hrs. Total rotating hrs: 16. Daily Costs: \$24921.21. Cumulative Costs: \$29071.21.

03/01/96 Day 3. Present Operation: Drilling. Current Depth: 355'. Depth drilled in 24 hrs: 130'. Drilling fluid: Air, 200-225PSI, & 1200-1400 cfm. Drilled w/#2 17-1/2" mission hammer bit for 13-1/2 hours. Total rotating hrs: 29-1/2. Daily Costs: \$8737.24. Cumulative Costs: \$37808.45.

03/04/96 Day 4. Present Operation: Drilling. Current Depth: 510'. Depth drilled in 24 hrs: 155'. Drilling fluid: Air, 200-225PSI, & 1200-1450 cfm. Drilled 20' w/#2 17-1/2" mission hammer bit in 21 hrs. Total rotating hrs: 50.5. Daily Costs: \$7431.00. Cumulative Costs: \$45239.45.

RIVER GAS CORPORATION
D-3 (DISPOSAL WELL)
1600' FSL & 1126' FWL
NW/4 of SW/4 Sec. 18, T15S, R10E
Carbon County, Utah
Elevation: 6300'
API: 43-007-30290
Drilling Contractor: Bill Jr. Rathole Drilling

Page 2

03/04/96 Day 5. Present Operation: Digging cellar-install wellhead. Current Depth: 526'. Depth drilled in 24 hrs: 20'. Drilled 20' to 530' w/#2 17-1/2" Mission hammer bit in 4-1/2 hours. Total rotating hrs: 55. Set 12 jnts 13-3/8" H-40 surface csg @ 526' using 600 sks ~~GG~~ + 2% S-1 + 1/4#/sk D-29. Daily Costs: \$21549.79. Cumulative Costs: \$66789.24.

03/04/96 Day 6. Present Operation: prepare to rig up #16. Current Depth: 527'. Repaired leak in casing, tested - good @ 700PSI. Daily Costs: \$4758.43. Cumulative Costs: \$71547.67.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
CEMENTING OPERATIONS

WELL NAME: Utah D-3 API NO: 43-007-30290
QTR/QTR: NW/SW SECTION: 18 TOWNSHIP: 15S RANGE: 10E
COMPANY NAME: River Gas COMPANY MAN: Georg Mueller
INSPECTOR: J. R. Matthews DATE: 3/18/94
CASING INFORMATION: SURFACE CASING: 13 3/8
SIZE: 9 5/8 GRADE: K-55 HOLE SIZE: 12 1/4 DEPTH: 3720'
PIPE CENTRALIZED: Y
CEMENTING COMPANY: Dowell/Schlumberger
CEMENTING STAGES: 1

SLURRY INFORMATION:

1. CLASS: G ADDITIVES: 5/50 Poz w/8% gel/10%
Salt (Brow) + 2% Calu

LEAD: 1250 sk TAIL: 200 sk ClG + 1/4#/sk + 2% Calu

2. SLURRY WEIGHT LBS. PER GALLON:

LEAD: 12.5 TAIL: 15.8

3. WATER (GAL/SX)

LEAD: 10.8 TAIL: 5.0

4. Yield 1.92 cuft/sx 1.15 cuft/sx
CEMENT TO SURFACE: _____ LOST RETURNS: _____

1 INCH INFORMATION: WEIGHT: _____ CEMENT TO SURFACE: _____

FEET: _____ SX: _____ CLASS: _____ CACL%: _____ RETURNS: _____

ADDITIONAL COMMENTS:

1250 sk lead = 2400 cuft cement
200 sk tail = 230 cuft cement
Run 8945 40# K-55 LTEL + 5 ft 36# K-55
Caliper on density shows washed out section
2300' to 3100'

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
CEMENTING OPERATIONS

WELL NAME: UTAH D-3 API NO: 43-007-30290

QTR/QTR: NW/SW SECTION: 18 TOWNSHIP: 15S RANGE: 10E

COMPANY NAME: RIVER GAS COMPANY MAN GREG MUELLER

INSPECTOR: F. R. MATTHEWS  DATE: 3/18/96

CASING INFORMATION: SURFACE CASING: 13 3/8"

SIZE: 9 5/8" GRADE: K-55 HOLE SIZE: 12 1/4" DEPTH: 3720'

PIPE CENTRALIZED: YES

CEMENTING COMPANY: DOWELL

CEMENTING STAGES: 1

SLURRY INFORMATION:

1. CLASS: "G" ADDITIVES: 50/50 POZ W/8% GEL 10% SALT

(BWOW) + 2% CACL

LEAD : 1250 SX TAIL: 200 SX CLASS "G"
1/4 #/ft + 2% CaCl₂

2. SLURRY WEIGHT LBS. PER GALLON:

LEAD 12.5 #'S TAIL: 15.8 #'S

3. WATER (GAL/SX)

LEAD: 10.8 # 'S TAIL: 5.0 #'S

4. YIELD: 1.92 CU/FT SX 1/15 CU/FT SX

CEMENT TO SURFACE: _____ LOST RETURNS: _____

1 INCH INFORMATION: WEIGHT: _____ CEMENT TO SURFACE: _____

FEET: _____ SX: _____ CLASS: _____ CACL%: _____ RETURNS: _____

ADDITIONAL COMMENTS: 1250 SX LEAD= 2400 CUFT CEMENT-200SX TAIL

230 CU/FT CEMENT. RAN 89 JTS K-55 40# LT & C-5 JTS K-55 36 #.

CALIPER ON DENSITY SHOWS WASHED OUT SECTION-2300' TO 3100'

RECEIVED MAR 25 1996	6. Lease Designation and Serial Number ML - 38666
	7. Indian Allottee or Tribe Name
	8. Unit or Communitization Agreement

SUNDRY NOTICES AND REPORTS ON WELLS

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Use APPLICATION FOR PERMIT— for such proposals.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other (specify) Coalbed Methane		9. Well Name and Number Utah D-3
2. Name of Operator River Gas Corporation		10. API Well Number 43-007-30290
3. Address of Operator 511 Energy Center Blvd. Northport, AL 35476		11. Field and Pool, or Wildcat Drunkards Wash
4. Location of Well Footage : 1600' FSL & 1126' FWL CO. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E		4. Telephone Number (205) 759-3282

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA	
NOTICE OF INTENT (Submit in Duplicate)	SUBSEQUENT REPORT (Submit Original Form Only)
<input type="checkbox"/> Abandonment <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Multiple Completion <input type="checkbox"/> Other	<input type="checkbox"/> Abandonment * <input type="checkbox"/> Casing Repair <input type="checkbox"/> Change of Plans <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Fracture Treat <input checked="" type="checkbox"/> Other Weekly Progress Report
<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recompletion <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Shoot or Acidize <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off
Approximate Date Work Will Start _____	Date of Work Completion _____
Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. * Must be accompanied by a cement verification report.	

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

See Attached

CONFIDENTIAL

I hereby certify that the foregoing is true and correct.

Name & Signature Dennis Plowman	Title Reservoir Technician	Date 03/18/96
------------------------------------	-------------------------------	------------------

RIVER GAS CORPORATION
D-3 (DISPOSAL WELL)
1600' FSL & 1126' FWL
NW/4 of SW/4 Sec. 18, T15S, R10E
Carbon County, Utah
Elevation: 6300'
API: 43-007-30290
Drilling Contractor: Caza Drilling

Page 5

03/18/96 Day 19. Present Operation: Drilling. Current
Depth: 3658'. Depth drilled in 24 hrs: 48'.
Drilling fluid: Mud. Drilled 3422' to 3630' w/#7
12-1/4" Sec 86F bit in 13-1/2 hrs. Drilled 3630'
w/#8 12-1/4" smith bit in 9-1/2 hrs. Total
rotating hrs: 235. **Daily Costs: \$7914.00.**
Cumulative Costs: \$219214.03.

03/18/96 Day 20. Present Operation: GIH - drilling 10'.
Current Depth: 3710'. Depth drilled in 24 hrs:
52'. Drilling fluid: Mud. Drilled 3630' to 3710'
w/#8 12-1/4" smith bit in 16 hrs. Drilled 3710'
w/#9 12-1/4" smith bit in 2-1/2 hrs. Total
rotating hrs: 244. **Daily Costs: \$16646.00.**
Cumulative Costs: \$235860.03.

RIVER GAS CORPORATION
D-3 (DISPOSAL WELL)
1600' FSL & 1126' FWL
NW/4 of SW/4 Sec. 18, T15S, R10E
Carbon County, Utah
Elevation: 6300'
API: 43-007-30290
Drilling Contractor: Caza Drilling

Page 4

03/12/96 Day 14. Present Operation: Repair U-joint on rig. Current Depth: 3077'. Depth drilled in 24 hrs: 112'. Drilling fluid: Mud. Drilled 2891' w/#6 12-1/4" Sec S84F bit in 22-1/2 hrs. Total rotating hrs: 144. **Daily Costs: \$9981.71. Cumulative Costs: \$174682.84.**

03/14/96 Day 15. Present Operation: Drilling. Current Depth: 3222'. Depth drilled in 24 hrs: 145'. Drilling fluid: Mud, 500-600psi. Drilled 2891' w/#6 12-1/4" Sec S84F bit in 23-1/2 hrs. Total rotating hrs: 161. **Daily Costs: \$8762.00. Cumulative Costs: 183444.84.**

03/14/96 Day 16. Present Operation: Drilling. Current Depth: 3365'. Depth drilled in 24 hrs: 143'. Drilling fluid: Mud. Drilled 2891' w/#6 12-1/4" Sec S84F bit in 24 hrs. Total rotating hrs: 182. **Daily Costs: \$9087.47. Cumulative Costs: \$192532.31.**

03/15/96 Day 17. Present Operation: Drilling. Current Depth: 3464'. Depth drilled in 24 hrs: 99'. Drilling fluid: Mud. Drilled 2891' to 3422' w/#6 12-1/4" Sec S84F bit in 13.5 hrs. Drilled 3422' w/#7 12-1/4" Sec 86F bit in 10 hrs. Total rotating hrs: 197-1/2. **Daily Costs: \$10689.72. Cumulative Costs: \$203222.03.**

03/18/96 Day 18. Present Operation: Repair #2 Pump/Drilling. Current Depth: 3610'. Depth drilled in 24 hrs: 146'. Drilling fluid: Mud. Drilled 3422' w/#7 12-1/4" Sec 86F bit in 24 hrs. Total rotating hrs: 221-1/2. **Daily Costs: \$8078.00. Cumulative Costs: \$211300.03.**

RIVER GAS CORPORATION
D-3 (DISPOSAL WELL)
1600' FSL & 1126' FWL
NW/4 of SW/4 Sec. 18, T15S, R10E
Carbon County, Utah
Elevation: 6300'
API: 43-007-30290
Drilling Contractor: Caza Drilling

Page 3

03/07/96 Day 9. Present Operation: Prepare to Drill.
Current Depth: 1910'. Depth drilled in 24 hrs:
29'. Drilling fluid: Air, 300-350PSI, & 1600-2400
cfm. Drilled 526' to 1900' w/#3 12-1/4" hammer bit
in 5 hrs. Drilled 1900' to 1910' w/#4 12-1/4"
hammer bit in 10 hrs. Drilled 1910' w/#5 12-1/4"
smith bit in 2 hrs. Total rotating hrs: 81-1/2".
Daily Costs: \$10645.80. Cumulative Costs:
\$120360.77.

03/08/96 Day 10. Present Operation: Drilling. Current
Depth: 2685'. Depth drilled in 24 hrs: 775'.
Drilling fluid: Air, 280-350PSI, & 2000-2800 cfm.
Drilled 1910 w/#5 12-1/4" smith bit in 24 hrs.
Total rotating hrs: 105-1/2. **Daily Costs:**
\$8810.80. Cumulative Costs: \$129171.57.

03/11/96 Day 11. Present Operation: Working Stuck Pipe.
Current Depth: 2891'. Depth drilled in 24 hrs:
206'. Drilling fluid: Air/Mist, 350-15000, & 2800
cfm. Drilled 1910' to 2891' w/#5 12-1/4" Smith F-2
bit in 24 hrs. Total rotating hrs: 117.5. **Daily**
Costs: \$8000.56. Cumulative Costs: \$137172.13.

03/11/96 Day 12. Present Operation: Ream & Condition Hole.
Current Depth: 2981'. Depth drilled in 24 hrs:
248'. Drilling fluid: Air/Mud, 8.6#/gal, & 300-400
cfm. Drilled 1910' to 2891' w/#5 12-1/4" Smith F-2
bit in 5-1/2 hrs. Drilled 2391' w/#6 12-1/4" Sec
S84F bit in 14 hrs. Total rotating hrs: 117.5, w/8
hrs. Reaming. **Daily Costs: \$15876.00. Cumulative**
Costs: \$153048.13.

03/11/96 Day 13. Present Operation: Drilling. Current
Depth: 2965'. Depth drilled in 24 hrs: 74'.
Drilling fluid: Mud, 8.5# 2000 vis 85. Drilled
2891' w/#6 12-1/4" Sec S84F bit in 24 hrs. Total
rotating hrs: 127. **Daily Costs: \$11653.00.**
Cumulative Costs: \$164701.13.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED

MAR 26 1996

SUNDRY NOTICES AND REPORTS ON WELLS

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Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☐ OTHER:

Disposal Well (Waste Water)

2. Name of Operator:

River Gas Corporation (205) 759-3282

3. Address and Telephone Number:

511 Energy Center Boulevard Northport, Alabama 35476

4. Location of Well

Footage: 1600' FSL & 1126' FWL (NW/4 of SW/4)

CO, Sec., T., R., M.: Sec 18, T15S, R10E

5. Lease Designation and Serial Number:

ML-38666

6. If Indian, Alutian or Tribe Name:

7. Unit Agreement Name:

UTU67921X

8. Well Name and Number:

D-3

9. API Well Number:

43-007-30290

10. Field and Pool, or Wildcat:

Drunkards Wash

County: Carbon

State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT

(Submit in Duplicate)

☐ Abandonment☐ New Construction☐ Casing Repair☐ Pull or Alter Casing☐ Change of Plans☐ Recompletion☐ Conversion to Injection☐ Shoot or Acidize☐ Fracture Treat☐ Vent or Flare☐ Multiple Completion☐ Water Shut-Off☐ Other _____

Approximate date work will start _____

SUBSEQUENT REPORT

(Submit Original Form Only)

☐ Abandonment☐ New Construction☐ Casing Repair☐ Pull or Alter Casing☐ Change of Plans☐ Shoot or Acidize☐ Conversion to Injection☐ Vent or Flare☐ Fracture Treat☐ Water Shut-Off☒ Other Weekly Progress Report

Date of work completion _____

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SEE ATTACHED

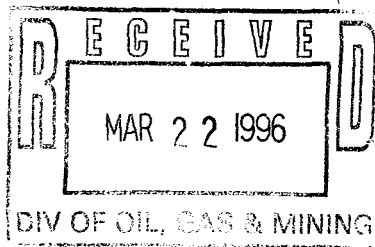
13.

Name & Signature:

Steven L. Prince
Steven J. Prince

Title: Reg / Engineering Mgr Date: 3-22-96

(This space for State use only)

[illegible]

SUNDRY NOTICES AND REPORTS ON WELLS

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Use APPLICATION FOR PERMIT— for such proposals

6. Lease Designation and Serial Number ML-38666
7. Indian Allottee or Tribe Name
8. Unit or Communitization Agreement UTU 67921X
9. Well Name and Number D-3
10. API Well Number 43-00730290
11. Field and Pool, or Wildcat Drunkards Wash

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other (specify) Water Disposal Well	
2. Name of Operator River Gas Corporation	
3. Address of Operator 511 Energy Center Blvd. Northport, AL 35476	
4. Telephone Number (205) 759-3282	
5. Location of Well Footage 1600' FSL & 1126' FWL CQ, Sec. T., R., M. : NW/SW, Sec 18, T15S, R10E	
County : Carbon State : UTAH	

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other | |

Approximate Date Work Will Start _____

SUBSEQUENT REPORT (Submit Original Form Only)

- | | |
|---|---|
| <input type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other Extending Depth | |

Date of Work Completion 3/27/96

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

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Proposed total depth was extended to 6500'. Original total depth was 6300'.

I hereby certify that the foregoing is true and correct:

Name & Signature	Callen Hurtt <i>Callen Hurtt</i>	Title	Tech. Assistant	Date	3/27/96
(State Use Only)					

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APR 4 1996

SUNDRY NOTICES AND REPORTS ON WELLS

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Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☐ OTHER:

Disposal Well (Waste Water)

2. Name of Operator:

River Gas Corporation

(205) 759-3282

3. Address and Telephone Number:

511 Energy Center Boulevard Northport, AL 35476

4. Location of Well

Footages: 1600' FSL & 1126' FWL

QQ, Sec., T., R., M.: Sec 18, T15S, R10E (NW/4 of SW/4)

County: Carbon

State: Utah

5. Lease Designation and Serial Number:

ML - 38666

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

UTU67921X

8. Well Name and Number:

Utah D-3

9. API Well Number:

43-007-30290

10. Field and Pool, or Wildcat:

Drunkards Wash

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT

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☐ Conversion to Injection ☐ Shoot or Acidize
☐ Fracture Treat ☐ Vent or Flare
☐ Multiple Completion ☐ Water Shut-Off
☐ Other _____

Approximate date work will start _____

SUBSEQUENT REPORT

(Submit Original Form Only)

- ☐ Abandonment ☐ New Construction
☐ Casing Repair ☐ Pull or Alter Casing
☐ Change of Plans ☐ Shoot or Acidize
☐ Conversion to Injection ☐ Vent or Flare
☐ Fracture Treat ☐ Water Shut-Off
☒ Other Weekly Progress Report

Date of work completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL
COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

SEE ATTACHED

13.

Name & Signature:

Steven L. Prince

Title: Reg./Engineering Mg Date: 3-29-96

(This space for State use only)

RIVER GAS CORPORATION

D-3 (DISPOSAL WELL)

1600' FSL & 1126' FWL

NW/4 of SW/4 Sec. 18, T15S, R10E

Carbon County, Utah

Elevation: 6300'

API: 43-007-30290

Drilling Contractor: Caza Drilling

Page 6

03/21/96 Day 23. Present Operation: Drying out
Hole/Drilling. Current Depth: 4567'. Depth drilled
in 24 hrs: 762'. Drilling fluid: Air & 2000 scf.
Drilled 3718' w/#10 8-3/4" smith bit in 24 hrs.
Total rotating hrs: 274-1/2. **Daily Costs:**
\$10210.00. Cumulative Costs: \$346006.08.

03/25/96 Day 24. Present Operation: Drilling. Current
Depth: 5102'. Depth drilled in 24 hrs: 535'.
Drilling fluid: Air, 30/35000#/60-70 RPM - 200psi,
& 2000'-2200' cfm. Drilled 3718' to 4828' w/#10 8-
3/4" halco hammer bit in 11 hrs. Drilled 4826'
w/#11 8-3/4" reed bit in 10 hrs. Total rotating
hrs: 281-1/2. **Daily Costs: \$7942.80. Cumulative**
Costs: \$353948.88.

03/25/96 Day 25. Present Operation: Drilling. Current
Depth: 5398'. Depth drilled in 24 hrs: 296'.
Drilling fluid: Air/Mud. Drilled 4826' w/#11 8-
3/4" reed bit in 24 hrs. Total rotating hrs: 300-
1/2. **Daily Costs: \$16480.00. Cumulative Costs:**
\$370428.88.

03/25/96 Day 26. Present Operation: Drilling. Current
Depth: 5628'. Depth drilled in 24 hrs: 230'.
Drilling fluid: Mud. Drilled 4826' w/#11 8-3/4"
reed bit in 24 hrs. Total rotating hrs: 324-1/2.
Daily Costs: \$9438.00. Cumulative Costs:
\$379866.88.

03/25/96 Day 27. Present Operation: TOH. Current Depth:
5981'. Depth drilled in 24 hrs: 353'. Drilling
fluid: Mud. Drilled 4826' to 5981' w/#11 8-3/4"
reed bit in 24 hrs. Total rotating hrs: 347-1/2.
Daily Costs: \$9091.00. Cumulative Costs:
\$388957.88.

RIVER GAS CORPORATION
D-3 (DISPOSAL WELL)
1600' FSL & 1126' FWL
NW/4 of SW/4 Sec. 18, T15S, R10E
Carbon County, Utah
Elevation: 6300'
API: 43-007-30290
Drilling Contractor: Caza Drilling

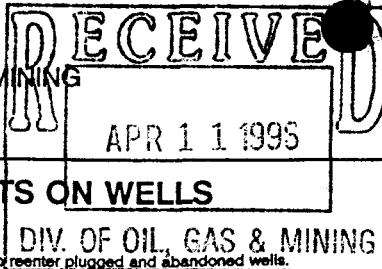
Page 7

03/26/96 Day 28. Present Operation: Drilling. Current Depth: 6185'. Depth drilled in 24 hrs: 204'. Drilling fluid: Mud. Drilled 4826' to 5981' w/#11 8-3/4" reed bit in 6 hrs. Drilled 5981' w/#12 8-3/4" reed bit in 17 hrs. Total rotating hrs: 360-1/2. **Daily Costs: \$15202.66. Cumulative Costs: \$404160.54.**

03/28/96 Day 29. Present Operation: Drilling. Current Depth: 6448'. Depth drilled in 24 hrs: 263'. Drilling fluid: Mud. Drilled 4826 w/#11 8-3/4" reed bit in 24 hrs. Total rotating hrs: 383-1/2. **Daily Costs: \$7989.74. Cumulative Costs: \$412150.28.**

03/29/96 Day 30. Present Operation: Logging. Current Depth: 6510'. Depth drilled in 24 hrs: 62'. Drilling fluid: Mud. Drilled 5981' to 6510' w/#11 8-3/4" reed bit in 18 hrs. Total rotating hrs: 393-1/2. Drilled 6448' to 6510', condition hole to log, Survey 1-1/2 @ 6510', circulate and pull out of hole. RU Schlumberger @ 12:40 am 3/28/96 to log AIT/Dipole Sonic. NOTE: Schlumberger having trouble w/communication system. **Daily Costs: \$7733.00. Cumulative Costs: \$419883.28.**

03/29/96 Day 31. Logging. At 2:30am 3/29/96 core tool stuck. Arm would not retract. Attempts to pull arm off tool failed. Calculations show possible cable stuck @ or near casing seat +/- 4000'. Discussed procedure w/schlumberger and called Graco Fishing Tool for equipment. Discussed options w/Mr. Willis @ 3:10am. **Daily Costs: \$6909.00. Cumulative Costs: \$426792.28.**



SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

5. Lease Designation and Serial Number:

ML-38666

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

UTU-67921X

8. Well Name and Number:

Utah D-3

9. API Well Number:

43-007-30290

10. Field and Pool, or Wildcat:

Drunkards Wash

1. Type of Well: OIL ☐ GAS ☐ OTHER:

Disposal Well (Waste Water)

2. Name of Operator:

River Gas Corporation (205) 759-3282

3. Address and Telephone Number:

511 Energy Center Blvd. Northport, Alabam 35476

4. Location of Well

Footages: 1600' FSL & 1126' FWL

QQ, Sec., T., R., M.: Sec 18, T15S, R10E

County: Carbon

State: Utah

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT

(Submit in Duplicate)

- ☐ Abandonment ☐ New Construction
☐ Casing Repair ☐ Pull or Alter Casing
☐ Change of Plans ☐ Recompletion
☐ Conversion to Injection ☐ Shoot or Acidize
☐ Fracture Treat ☐ Vent or Flare
☐ Multiple Completion ☐ Water Shut-Off
☐ Other _____

Approximate date work will start _____

SUBSEQUENT REPORT

(Submit Original Form Only)

- ☐ Abandonment ☐ New Construction
☐ Casing Repair ☐ Pull or Alter Casing
☐ Change of Plans ☐ Shoot or Acidize
☐ Conversion to Injection ☐ Vent or Flare
☐ Fracture Treat ☐ Water Shut-Off
☒ Other Wkly Progress Rpt

Date of work completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Moved Ross Well Service Workover Rig to the location on April 1, 1996. Rigged up and drilled out the D.V. Tool (4095') on April 2, 1996. Pulled 2-7/8" Tubing out of the hole and ran a Bond Log (Schlumberger) on April 3, 1996. Swabbed the hole to reduce the Hydrostatic Pressure before Perforating the well with Halliburton Wireline Service. Perforated @ 6030'-6040' 6 spf. on April 4, 1996. Rigged up and swabbed the well to retrieve water samples for the State. Rigged up Halliburton Energy Service and Acidize the well with 1000 gals of 28% HCL Acid. Rate 2-.5 BPM. ISIP-950psi, 5min-750psi, 10min-600psi, & 15min-510psi.

13.

Name & Signature:

Billy Stacy

Title: V.P. Utah Operations Date: 4-8-96

V.P. Utah Operations

(This space for State use only)

RIVER GAS CORPORATION

D-3 (DISPOSAL WELL)

1600' FSL & 1126' FWL

NW/4 of SW/4 Sec. 18, T15S, R10E

Carbon County, Utah

Elevation: 6300'

API: 43-007-30290

Drilling Contractor: Caza Drilling

Page 8

04/01/96 Day 32. Present Operation: Logging. Current Depth: 6510'. Waiting on Fishing Tools. Attempt to pull tool free w/rig. Pulled out of rope socket. GIH w/fish tool, tagged fish @ 5829'. Pumped on string-fish not latched. GIH-push fish. Latched fish, chain out of hole. LD fish, recovered 4 cores. Break down fishing tools & load out. Attempt to core - Tool would not operate downhole. Tested before going in hole. POOH and begin repairs, GIH w/bond log tool. Logging w/bond log. Daily Costs: \$9639.00. Cumulative Costs: \$436431.28.

04/01/96 Day 33. Present Operation: Circulate/Prepare to cement. TD 3/27/96 @ 5:00pm, 6510'. Running bond log, attempt to locate sidewall core gun. RD Schlumberger, TIH, circulate & condition. POOH & LD drill string. RU csg crew, Set 101 jnts Production Csg @ 6507.58' in 8-3/4" production borehole using 49 sks 50/50 POZ + 8% D-20 + 10% D-44 + D-35 + 2% S-1 and 323 sks 10-1 RFC. Daily Costs: \$126946.35. Cumulative Costs: \$563377.63.

04/01/96 Day 34. Present Operation: Done-Rig Released. Plug Down 3/31/96 12:45pm. Daily Costs: \$51556.97. Cumulative Costs: \$614934.60.

04/08/96 4/1/96-RU Ross's. 4/2/96-RU to drill out D.V. Tool (4095'). 4/3/96-pulled Tubing out of hole and ran Bond Log. 4/4/96-Swabbed the hole to reduce Hydrostatic Pressure before perforating. Perforated well @ 6030'-6040' 6 spf. Also, RU & swabbed well to retrieve wtr samples for the State. RU Halliburton and acidized well w/1000gals of 28% HCL. Rate 2-.5BPM. ISIP-950psi, 5 min-750psi, 10 min-600psi, & 15 min-510psi.

CLIENT

ADDRESS

PHONE/FAX

CONTACT

SITE

SAMPLER'S SIGNATURE

SAMPLE ID

SAMPLE
DATE/TIME

MATRIX

OF CONTAINERS
BTX/TPH
VOLATILES
SEMIVOLATILES
D LIST METALS
ET PROFILE

TURN AROUND TIME

TURN AROUND TIMES

I = Priority I

II = Priority II

III = 5 Day Rush

S = Standard

COMMENTS

SEE ATTACHED

Quote # /P.O. # 2 00 434

Special Instructions:

Relinquished By: Signature

Date/Time

Received By: Signature

Date/Time

PRINT NAME

Relinquished By: Signature

Date/Time

PRINT NAME

Received By: Signature

Date/Time

PRINT NAME

Dispatched By: Signature

Date/Time

PRINT NAME

Received for Laboratory By:

Date/Time

PRINT NAME

PRINT NAME Elana Hayward 1610

STATE OF UTAH - OIL, GAS + MINING

3 TRIAD CENTER SUITE 350

SALT LAKE CITY, UT 84180

359-3940

BRAD HILL



AMERICAN

WEST

ANALYTICAL

LABORATORIES

463 West 3600 South

Salt Lake City, Utah

84115

(801) 263-8686

Fax (801) 263-8687

CHAIN OF CUSTODY

LAB # 25542



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: State of Utah- Oil, Gas, and Mining
Date Sampled: February 15, 1996
Lab Sample ID.: 25073-02
Field Sample ID.: Texaco SWD 1 Sample #2

Contact: Dan Jarvis
Date Received: February 16, 1996
Received By: Sherlyn Lewis
Set Description: Two Waste Samples

Analytical Results

Navajo SS Formation

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

	<u>Method Used:</u>	<u>Detection Limit:</u> mg/Kg	<u>Amount Detected:</u> mg/Kg
TOTAL METALS			
Calcium	6010	5.0	2,700.
Magnesium	6010	5.0	700.
Potassium	6010	5.0	280.
Sodium	6010	5.0	4,600.

OTHER CHEMISTRIES

Bicarbonate (as CaCO ₃)	310.1	10.	460.
Bromide	320.1/405.0	0.05/0.1	1.8
Carbonate (as CaCO ₃)	310.1	10.	<10.
Chloride	4500 CLB	0.5	11,000.
† Conductivity	120.1	10.	24,000.
Nitrate (as N)	353.2	0.01	<0.01
pH	150.1	0.1	6.6
Sulfate	375.4	5.0	3,600.
TDS	160.1	1.0	23,000.

† Conductivity reported in $\mu\text{mhos/cm}$ @ 25 C.

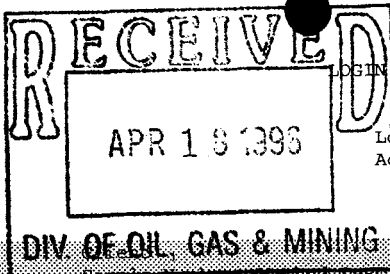
Released by:

John Upmeyer
Laboratory Supervisor

Report Date 2/27/96

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND



CHAIN OF CUSTODY REPORT (ln01)
Apr 08 1996, 04:42 pm

Login Number: L25542
Account: OGM100 State of Utah - Oil, Gas, and Mining
Site : RIVER GAS

Contact: Brad Hill

(w/ UTA110)
eh

Laboratory	Sample Number	Sample Number	Method Description	Collect Date	Receive Date	Due PR Date
------------	---------------	---------------	--------------------	--------------	--------------	-------------

L25542-1	SWAB #1	05-APR-96	08-APR-96	17-APR-96
Only one sample container per sample, water chem & metals, SHARE. PO#200434				
Water	P BI/CARB	Bicarbonate & carbonate	Expires:19-APR-96	apr 8 1 Contain
Water	C BICARB	Bicarbonate (as CaCO3)	Expires:19-APR-96	
Water	C CARB	Carbonate (as CaCO3)	Expires:03-MAY-96	
Water	S BR	Bromide	Expires:02-OCT-96	
Water	S CA	Calcium	Expires:03-MAY-96	
Water	S CL	Chloride	Expires:03-MAY-96	
Water	S COND	Conductivity (Specific)	Expires:02-OCT-96	
Water	S DIG-MET	Total Metal Digestion	Expires:02-OCT-96	
Water	S K	Potassium	Expires:02-OCT-96	
Water	S MG	Magnesium	Expires:02-OCT-96	
Water	S NA	Sodium	Expires:02-OCT-96	
Water	S NO3	Nitrate (as N)	Expires:03-MAY-96	
Water	S PH	pH	Expires:06-APR-96	
Water	S SO4	Sulfate	Expires:03-MAY-96	
Water	S TDS	Total dissolved solids	Expires:12-APR-96	

L25542-2	SWAB #2	05-APR-96	08-APR-96	17-APR-96
Only one sample container per sample, water chem & metals, SHARE				
Water	P BI/CARB	Bicarbonate & carbonate	Expires:19-APR-96	apr 8 1 Contain
Water	C BICARB	Bicarbonate (as CaCO3)	Expires:19-APR-96	
Water	C CARB	Carbonate (as CaCO3)	Expires:03-MAY-96	
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Water	S CA	Calcium	Expires:03-MAY-96	
Water	S CL	Chloride	Expires:03-MAY-96	
Water	S COND	Conductivity (Specific)	Expires:02-OCT-96	
Water	S DIG-MET	Total Metal Digestion	Expires:02-OCT-96	
Water	S K	Potassium	Expires:02-OCT-96	
Water	S MG	Magnesium	Expires:02-OCT-96	
Water	S NA	Sodium	Expires:02-OCT-96	
Water	S NO3	Nitrate (as N)	Expires:03-MAY-96	
Water	S PH	pH	Expires:06-APR-96	
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Date/Time

PRINT NAME

PRINT NAME

Dispatched By: Signature

Date/Time

Received for Laboratory By:

Date/Time

PRINT NAME

PRINT NAME Elona Hayward 1610

STATE OF UTAH - OIL, GAS + MINING
3 TRIAD CENTER SUITE 350
SALT LAKE CITY, UT 84180AMERICAN
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BRAD HILL

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Quote # / P.O. # 2 00 434

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pH	150.1	0.1	6.6
Sulfate	375.4	5.0	3,600.
TDS	160.1	1.0	23,000.

† Conductivity reported in μ mhos/cm @ 25 C.

Released by:

[Signature]
Laboratory Supervisor

Report Date 2/27/96

1 of 1

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STATE OF UTAH
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

INJECTION WELL - PRESSURE TEST

Test Date: <u>4/19/96</u>	Well Owner/Operator: <u>River Gas</u>
Disposal Well: <input checked="" type="checkbox"/>	Enhanced Recovery Well: _____ Other: _____
API No.: <u>43-007-30290</u>	Well Name/Number: <u>Utah D-3</u>
Section: <u>18</u>	Township: <u>15 S</u> Range: <u>10 E</u>

Initial Conditions:

Tubing - Rate: 3.5 bpm Pressure: 0 psi

Casing/Tubing Annulus - Pressure: 0 psi

Conditions During Test:

Time (Minutes)	Annulus Pressure	Tubing Pressure
0 <u>12:10 P.M.</u>	<u>2050</u>	_____
5	<u>2050</u>	_____
10	<u>2050</u>	_____
15 <u>12:25 P.M.</u>	<u>2050</u>	_____
20	_____	_____
25	_____	_____
30	_____	_____

Results: Pass/Fail

Conditions After Test:

Tubing Pressure: _____ psi

Casing/Tubing Annulus Pressure: 2050 psi

REMARKS:

15 min @ 2000# Took 11 bbl/s.
7" csg, 26" ft, K-55 54980# burst pressure
Dwell on location, charting test. 4370 casing pressure

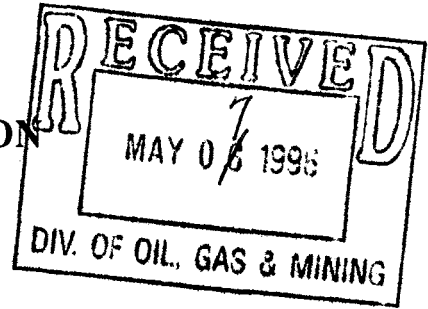
Terry Dietz
Operator Representative

Chris Kierst
DOGM Witness



RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)



May 6, 1996

Mr. Gil Hunt
State of Utah
Department of Natural Resources
Division of Oil, Gas, and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Re: Utah D-3 Injection Application
NW / SW of Sec. 18, T 15 S, R 10 E
S.L.B. & M., Carbon County, Utah

Dear Mr. Hunt:

Enclosed is an original and one copy of the remaining information to be submitted for the Utah D-3 injection well. Attached to the updated UIC form 1 is the following information.

- Attachment #1 - Updated description of the casing, and casing test
- Attachment #2 - Estimated amounts of fluid to be injected daily
- Attachment #3 - Water analyses: formation fluid and compatibility analysis
- Attachment #4 - Proposed average and maximum injection pressures
- Attachment #5 - Information on swabbing run per conversation with John Hollingshead of 4/23/94
- Attachment #6 - Evidence to support a finding that the proposed injection well will not initiate fractures through the overlying strata that could enable the injected fluid to enter the fresh water strata.

Attacnment #7 - Copies of electrical, radioactive and cement bond logs

If any aspect of this application remains incomplete or if I may be of assistance in any way please contact me at your convenience.

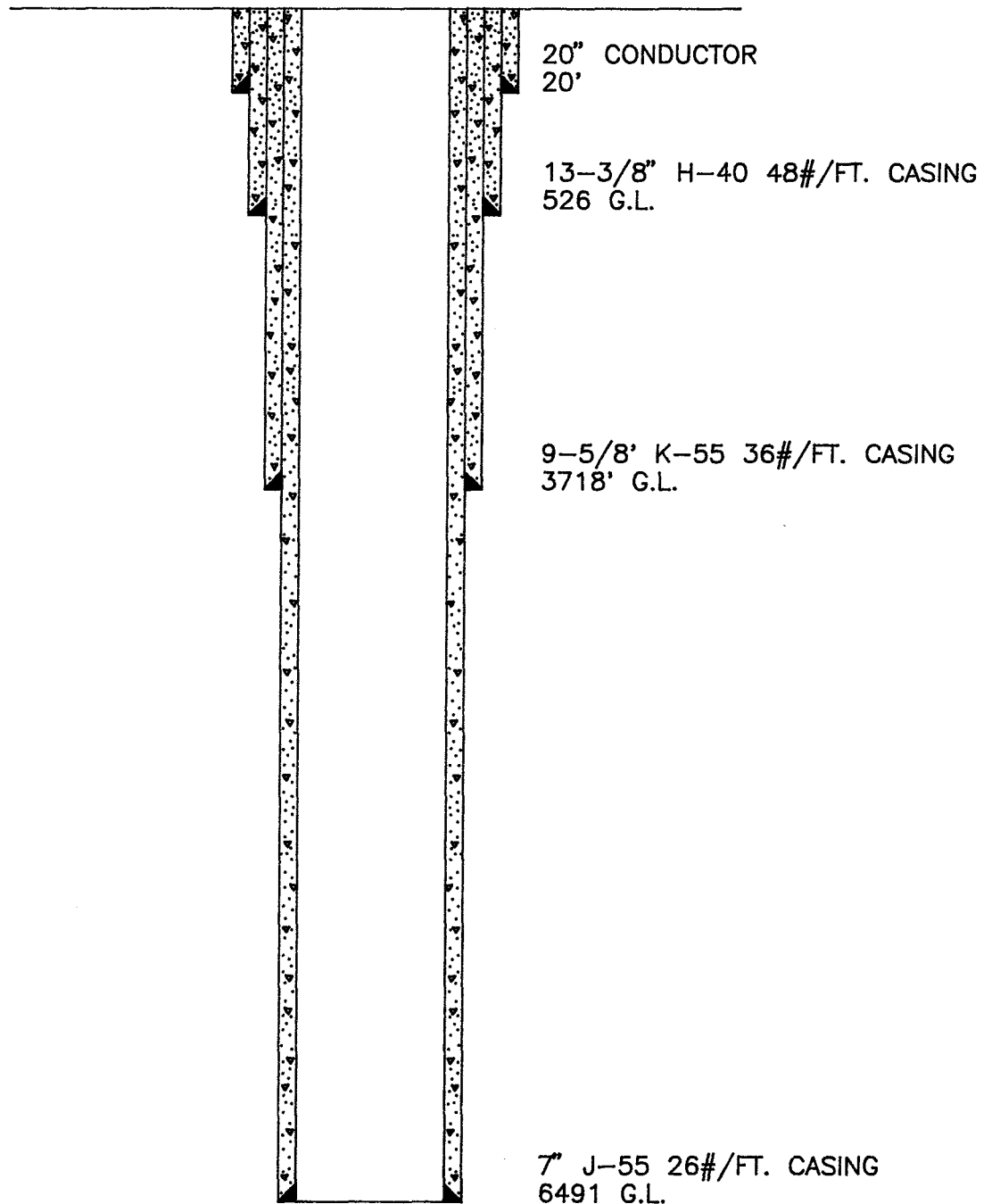
Sincerely,

A handwritten signature in black ink, appearing to read "Callen Hurtt", with a horizontal line extending from the end of the signature.

Callen Hurtt
Technical Assistant

PROPOSED DISPOSAL WELL D-3

SEC. 18, T 15 S, R 10 E
(1600' FSL, 1126 FWL)
CARBON COUNTY, UTAH



TIME: 12:30

NATURE SAVER™ FAX MEMO 01616		Date	4/22/96	# of pages	4
To	JOHN HOLLINGS HEAD				
On Behalf	AVA "BIG JOHN"				
Phone #					
Fax #	56-5309				
	From				
	Co.				
	Phone #				
	Fax # 637-8924 Fe				

Attachment #2

A. Type: Produced Water
B. Source: Ferron Coal Group
C. Volume: 28,800 BWPD

Attachment #3

A. Fluid Injected:

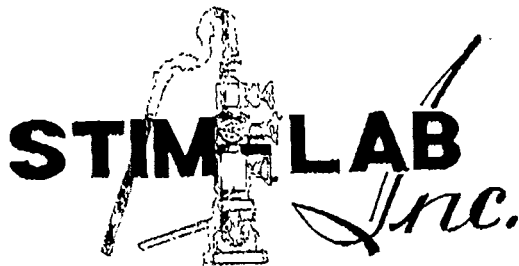
A sample of produced water was analyzed by Stim-Lab Inc. and the results are shown under the "Injection" column of the attached report.

B. D-3 Formation Fluid:

Two laboratories, Stim-Lab Inc. & Chemtech-Ford, analyzed the formation water from D-3. Their findings are shown on the attached reports.

C. Compatability Produced & Formation Waters:

Stim-Lab Inc. conducted this test and the results are shown at the bottom of their report.



7406 N. 81 HIGHWAY • P. O. BOX 1644 • DUNCAN, OKLAHOMA 73534
TELEPHONE 405/252-4309 • FAX NUMBER 405/252-6979

GLENN PENNY
President

May 6, 1996

John Hollingshead
River Gas Corp.
3600 Watermelon Rd..
Suite 205
Northport, AL 35476

RE: Analysis of Injection Water Compatibility with Navajo Connate Water, Project SL 4377

Dear Mr. Hollingshead,

STIM-LAB Inc. has completed both water analysis and simple compatibility study for mixing the proposed injection water at Drunkards Wash Field with a connate water sample from the proposed injection zone of the D-3 disposal well. Table 1 gives the analysis of both waters as received. Since neither were maintained in a pressurized state, the pH and carbonate values are most probably higher than would be the case in their natural state due to CO₂ release. Also, a considerable amount of precipitation of iron carbonate hydrate was present in the bottom of the connate water sample. Therefore, the dissolved iron value for this sample is most probably low. This may be the case also for the injection water as it was obtained from the holding pond where some settling of any precipitant may have also occurred. Previous experience with this injection water has shown that it has in the past precipitated iron carbonate hydrate requiring filtration before injection.

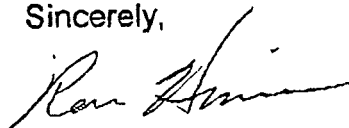
The compatibility study looked at mixing the two waters at three volume ratios as shown in Table 1. These were compared with a control mixed with deionized water. These show that some amount of carbonate formation occurred at all ratios with the injection water. A slight amount also occurred with the deionized water at the higher connate water ratio. The precipitant was mostly orange in color and readily soluble in 5% HCl with effervescence which would suggest at least a portion of it was iron carbonate hydrate. I would expect that with fresh samples maintained under pressure that the precipitation would be less or possibly not occur at all as CO₂ retained in solution would maintain a lower pH with mixing and limit precipitant formation.

Mr. John Hollingshead
May 6, 1996
Page 2

I understand an injection test was previously performed on the well with 6000 barrels of tap water. If the well was not flowed back and no formation crossflow is present, this should provide a suitable barrier to prevent any near-wellbore contact of fluids and limit the potential for scaling near the wellbore. If the well has been flowed since that time, I would recommend a preflush of tap water be injected ahead of the flood water. We can discuss the volumes further if needed. Keeping the injection water under pressure from the point of production to re-injection would also limit the amount of CO₂ evolution and reduce the possibility of carbonate formation. It should be pointed out that acid jobs performed on the D-1 well had minimal effect on injection pressure. This would indicate that carbonate precipitation near the wellbore was not a problem with the current injection system.

STIM-LAB Inc. appreciates the opportunity work with you on this project. If you have any questions regarding this testing, please feel free to give Mike Conway or myself a call.

Sincerely,



Ron Himes, Group Leader
Core Testing Group

RH



Table 1

SL 4377

River Gas Corporation

D-3 Connate and Injection Water Analysis

Analyzed 5/1-5/2/96

	<u>Injection</u>	<u>Connate</u>
pH	8.71	6.14
Carbonate	420 mg/L	0 mg/L
Bicarbonate	3890 mg/L	705 mg/L
Chlorides	2518 mg/L	116163 mg/L
TDS	8402 mg/L	217264 mg/L
Sulfate	<1.6 mg/L	3390 mg/L
Calcium	17.5 mg/L	1390 mg/L
Magnesium	15.8 mg/L	465 mg/L
Iron	<2.5 mg/L	10.9 mg/L
Aluminum	<5.0 mg/L	<5.0 mg/L
Sodium	2600 mg/L	78500 mg/L
Potassium	63 mg/L	1500 mg/L
Hardness	109 mg/L	5386 mg/L

Examination of Injection and
Connate Water Compatibility

<u>Mixing Ratio</u> <u>Connate/Injection</u>	<u>FeCO₃/CaCO₃</u> <u>(mg/L)</u>	<u>Final</u> <u>pH</u>
75/25	95	6.88
50/50	127	7
25/75	85	7.38
 Mixing Ratio Connate & DI		
75/25	24	6.68
50/50	1	6.78
25/75	0	6.97

CHEMTECH-FORD

ANALYTICAL LABORATORIES

Date: 4/25/96

To: River Gas of Utah
290 South Highway 55
Price, UT 84501

Group #: 7633
Lab #: 96-U004171
Project: DRUNKARDS WASH
Sample Desc: Well D-3
Disposal Well

Date Sampled: 4/ 5/96
Date Submitted: 4/ 8/96

Time Sampled: 16:47
Time Received: 13:10

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE		METHOD	ANALYST
			ANALYZED			
INORGANIC PARAMETERS						
Bicarbonate as HCO ₃ , mg/L	952	1	4/ 9/96	9:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	4/ 9/96	9:00	SM 2320B	TM
Alkalinity, Solids, mg/L	469	1	4/ 9/96	9:00	SM 2320B	TM
Hydroxide as OH, mg/L	< 1	1	4/ 9/96	9:00	SM 2320B	TM
Alkalinity, Total, mg/L	781	1	4/ 9/96	9:00	SM 2320B	TM
Carbon Dioxide, mg/L	1,450	1	4/ 9/96	9:00	SM 4500 D	TM
Chloride, mg/L	129,000	500	4/10/96	11:00	EPA 325.3	TM
Conductance, Specific, umhos/cm	372,000	0.1	4/11/96	11:15	EPA 120.1	DI
Cyanide (T), mg/L	< 0.002	0.002	4/13/96	4:20	ASTM D2036	DI
Fluoride, mg/L	< 0.5	0.5	4/12/96	11:45	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	5,250	50	4/13/96	11:00	EPA 130.2	TM
Mercury (T), as Hg, mg/L	0.0004	0.0003	4/10/96	15:08	EPA 245.1	KA
Nitrite, Nitrogen, mg/L	0.010	0.005	4/ 8/96	17:00	EPA 354.1	KA
Nitrate/Nitrite-Nitrogen, mg/L	1.1	0.4	4/10/96	10:05	EPA 353.1	TH
pH, Units	5.70	0.05	4/ 8/96	15:00	EPA 150.1	LS
Phosphorus, Ortho, mg/L	< 0.01	0.01	4/ 9/96	17:15	SM 4500	KA
Sulfate, mg/L	3,760	1000	4/11/96	14:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	215,000	250	4/15/96	2:05	EPA 160.1	MO
Total Suspended Solids, mg/L	528	2.5	4/ 8/96	15:30	EPA 160.2	LS
Turbidity, NTU	402	0.05	4/ 8/96	15:00	EPA 180.1	LS
Antimony (T), as Sb, mg/L	< 0.4	0.4	4/17/96	13:09	EPA 200.7	LH

Approved By:

R. L. Mum

```
{generic.rpt}
```

801 262 7299 PHONE
801 262 7378 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905

test of P.Wingate (7)
water (See SOB)
CH 10/11/02

CHEMTECH-FORD

ANALYTICAL LABORATORIES

To: River Gas of Utah
290 South Highway 55
Price, UT 84501

Date: 4/25/96

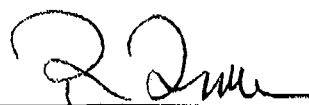
Group #: 7633
Lab #: 96-U004171
Project: DRUNKARDS WASH
Sample Desc: Well D-3
Disposal Well

Date Sampled: 4/ 5/96
Date Submitted: 4/ 8/96

Time Sampled: 16:47
Time Received: 13:10

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Arsenic (T), as As, mg/L	< 0.3	0.3	4/17/96 13:09	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.23	0.05	4/17/96 13:09	EPA 200.7	LH
Beryllium (T), as Be, mg/L	< 0.005	0.005	4/17/96 13:09	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.025	0.025	4/17/96 13:09	EPA 200.7	LH
Calcium (T), as Ca, mg/L	1,150	0.5	4/17/96 13:09	EPA 200.7	LH
Chromium (T), as Cr, mg/L	0.06	0.025	4/17/96 13:09	EPA 200.7	LH
Copper (T), as Cu, mg/L	0.19	0.05	4/17/96 13:09	EPA 200.7	LH
Iron (T), as Fe, mg/L	62.6	0.05	4/17/96 13:09	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.2	0.2	4/17/96 13:09	EPA 200.7	LH
Magnesium (T), as Mg, mg/L	315	0.5	4/17/96 13:09	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.90	0.05	4/17/96 13:09	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.05	0.05	4/17/96 13:09	EPA 200.7	LH
Potassium (T), as K, mg/L	840	0.5	4/17/96 13:09	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.4	0.4	4/17/96 13:09	EPA 200.7	LH
Silver (T), as Ag, mg/L	< 0.025	0.025	4/17/96 13:09	EPA 200.7	LH
Sodium (T) by difference, mg/L	83,300	5	4/24/96	CAL	LH
Thallium (T), as Tl, mg/L	< 0.75	0.75	4/17/96 13:09	EPA 200.7	LH
Zinc (T), as Zn, mg/L	0.27	0.05	4/17/96 13:09	EPA 200.7	LH
Cation, meq/L	3,730		4/24/96		RR
Anion, meq/L	3,730		4/24/96		RR
% Difference,	0.02		4/24/96		RR

Approved By: 

{generic.rpt}

801 262 7299 PHONE
801 262 7370 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905

CHEMTECH-FORD

ANALYTICAL LABORATORIES

Date: 4/25/96

To: River Gas of Utah
290 South Highway 55
Price, UT 84501

Group #: 7633
Lab #: 96-U004171
Project: DRUNKARDS WASH
Sample Desc: Well D-3
Disposal Well

Date Sampled: 4/ 5/96
Date Submitted: 4/ 8/96

Time Sampled: 16:47
Time Received: 13:10

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Receiving Temperature, C	-2	0	4/ 8/96 13:10		RCG

NOTE: Sample submitted on ice.
Sample submitted past holding time for Cr(Hex),
NO2, Ortho-P, & Turbidity.
Sample destroyed a \$100 tube on graphite furnace.
Electrical conductivity caused us to run all metal
by ICP.

Approved By: 

{generic.rpt}

801 262 7299 PHONE
801 262 7378 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 0905

Attachment #4

A. Proposed Average Injection Pressure:

Proposed average = 1820 psi

B. Maximum Injection Pressure:

$$(.735 \text{ psi/ft} - .433 \text{ psi/ft})(6035 \text{ ft}) = 1822 \text{ psi}$$

Summary of events leading up to swabbing for formation water

The cementing of the 7" production casing was completed at 12:45 P.M. on 3/31/96. The drilling rig was rigged down and off location late P.M. of 4/1/96. The following morning, 4/2/96, the completion rig was spotted, rigged up, and BOP's nipped up. Milling operations on the D.V. tool (4095'G.L.) commenced at 2:00 P.M. of the same day. By mid P.M. 4/2/96, the mill was lowered to 6442', and the hole was circulated for four hours. Fluid circulation continued for an additional two hours in the A.M. of 4/3/96. At noon of the same day, wireline was rigged up and run in the hole to bond log the production string. The late P.M. was spent running in the hole with a 7" RTTS packer and a 2 7/8" tubing string. On A.M. 4/4/96, fluid level was swabbed down to 5000'. The tubing and packer was tripped out of the hole by 2:00 P.M.. Perforators were rigged up and run in the hole to shoot the casing from 6030'-6040' 6 spf. By late P.M., perforators were out of the hole. The packer and tubing was started in the hole. The packer was set at 6015' by early A.M. on 4/5/96. The hole was swabbed from 8:00 P.M. to 5:00 P.M. of the same day. The swab runs were as follows:

RUN #	TIME	FLUID HIT(FT.)	PULL FROM(FT.)	FLUID RECOVERED(FT.)
1.	8:00 A.M.	2100	3800	1600
2.	8:20 A.M.	3700	5100	1500
3.	8:40 A.M.	4900	6000	1200
4.	9:00 A.M.	5600	6000	400
5.	9:20 A.M.	5600	6000	400
6.	9:40 A.M.	5600	6000	400
7.	10:00 A.M.	5700	6000	300
8.	10:40 A.M.	5700	6000	300
9.	10:52 A.M.	5700	6000	300
10.	11:12 A.M.	5500	6000	500
11.	11:30 A.M.	5700	6000	300
12.	11:50 A.M.	5700	6000	300
13.	12:10 A.M.	5700	6000	300
14.	12:30 P.M.	5700	6000	300
15.	12:50 P.M.	5700	6000	300
16.	1:10 P.M.	5700	6000	300
17.	1:30 P.M.	5700	6000	300
18.	1:50 P.M.	5700	6000	300
19.	2:10 P.M.	5700	6000	300
20.	2:30 P.M.	5700	6000	300
21.	2:50 P.M.	5700	6000	300
22.	3:20 P.M.	5700	6000	300
23.	3:40 P.M.	5750	6000	250
24.	4:00 P.M.	5700	6000	300
25.	4:20 P.M.	5750	6000	250
26.	4:40 P.M.	5750	6000	250<--1st run
27.	5:00 P.M.	5700	6000	300<--2nd run

11,850

<-- denotes runs that State samples were caught from.

11,850 ft. fluid recovered (68.6 bbls.)

Test of Wingate (?)
water 4/5/96 (see SOB)
10/11/02

Attachment #6

Evidence and Data:

A step rate test was conducted to determine the fracture extension pressure. The pressure realized was 4438 psi at a mid-point perforation of 6035 ft. This pressure translates into a frac gradient of $.735 \text{ psi/ft}$ which was used in attachment #4 to determine a maximum injection pressure at the surface. A detailed report has been attached for review.

ANALYSIS of INJECTION TESTS PERFORMED on WELL D-3 in DRUNKARDS WASH CARBON COUNTY, UTAH

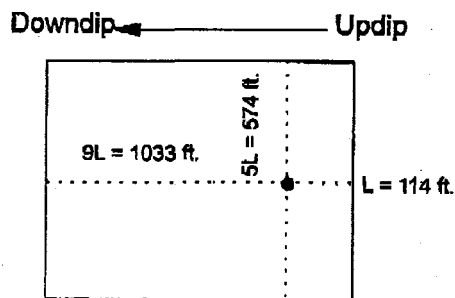
On April 9, 1996, two step rate tests and 1 long term injection test at constant rate were conducted to determine the fracture parting pressure (fracture extension pressure) on the Wingate interval perforated from 6030 - 40 ft. The surface readout gauge used during the injection stages was placed at ± 6060 ft. and the retrievable gauge used to monitor pressure during the extended shut-in was hung in the collar at 6058 ft. All reported pressures were adjusted to 6035 ft which represents the mid point of the perforations.

EXECUTIVE SUMMARY

The initial bottom hole pressure was 2351 psi. During the first step rate injection test, the reservoir flow capacity was increasing as the rate increased at the low flow rates. Therefore, the rate was increased in steps up to 25 BPM to create a hydraulic fracture and ensure that all the Wingate formation was taking fluid. The pressure was allowed to decline below 3000 psi and a second step rate was conducted. The analysis of the data (figure 1) shows that the fracture extension pressure was 4438 psi which represents a fracture gradient of 0.735 psi/ft. After the pressure had declined to 3159 psi, a 12 hr injection at 2 BPM was conducted. The data was successfully modeled with a short, finite conductivity fracture and an injection permeability of 5.5 md (figure 2). This analysis confirmed that the previously created fracture did not extend during the constant rate injection even at the ending injection pressure of 4431 psi. The pressure decline was then monitored for 133 hours to determine reservoir permeability. The principal findings were:

1. The Wingate permeability in the vicinity of the wellbore is approximately 3 md (figure 3). The reduced permeability compared to the measured core permeability's of 10-50 md is due to the crossbedding.

2. The pressure behavior is best modeled by a well setting near one end of a bounded rectangle with the following dimensions.



3. The same crossbedding previously mentioned is most likely the cause of the boundaries observed. Experiences with well D-1 would suggest that the boundaries are not completely sealing boundaries, but "leak" pressure and fluid at a much reduced permeability.

Figure 1: Analysis of Step Rate Test to Determine Fracture Extension Pressure

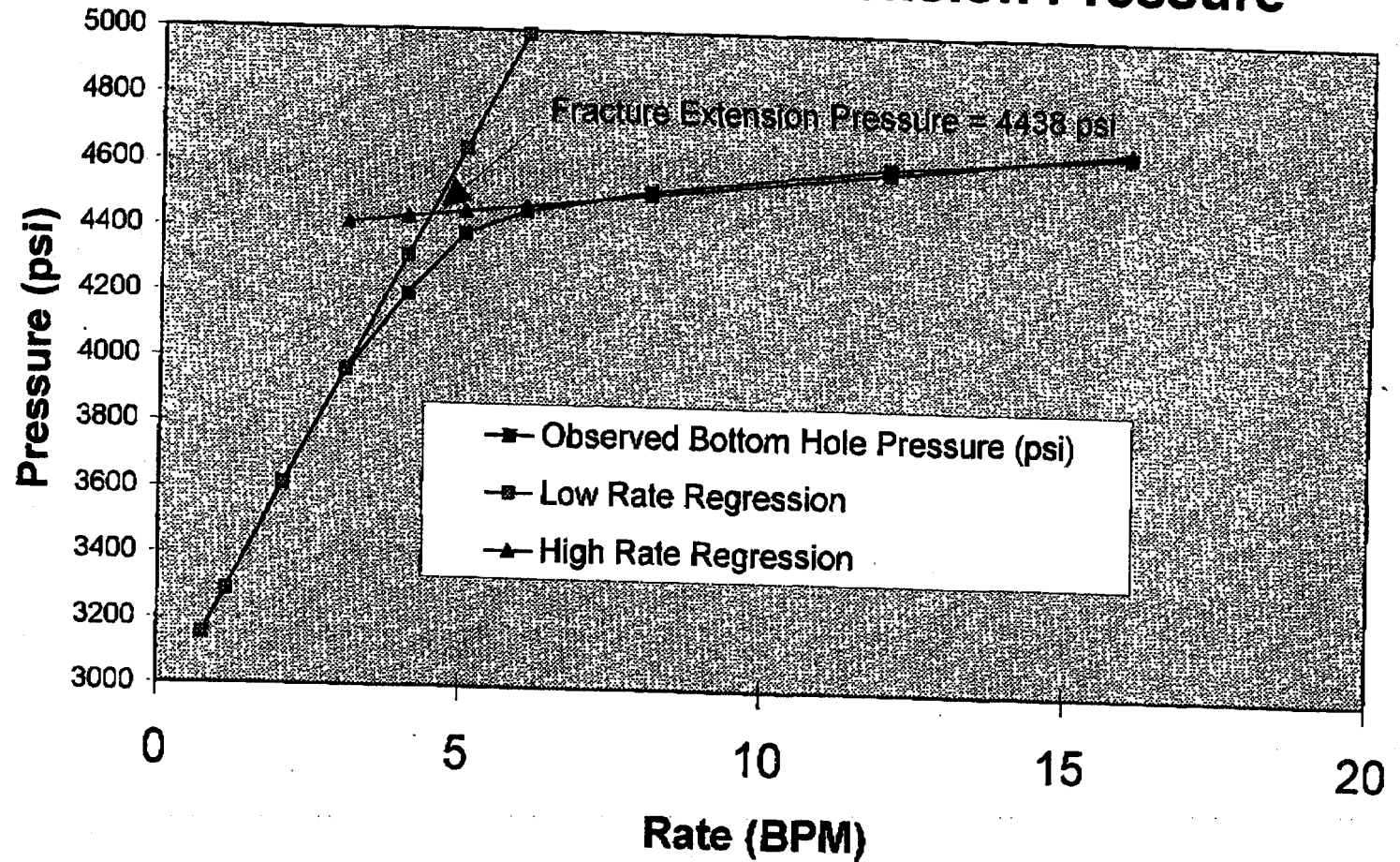


Figure 2

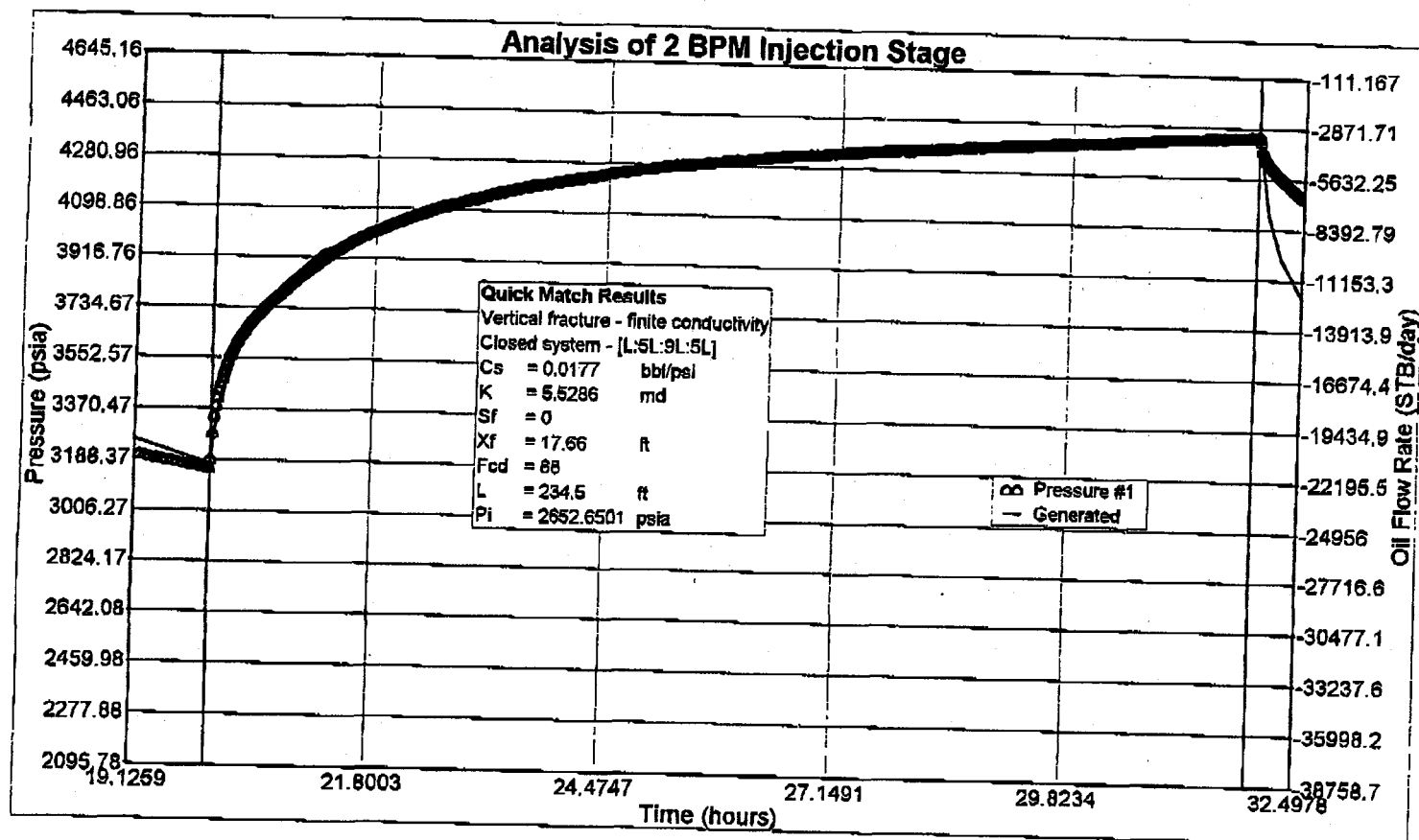
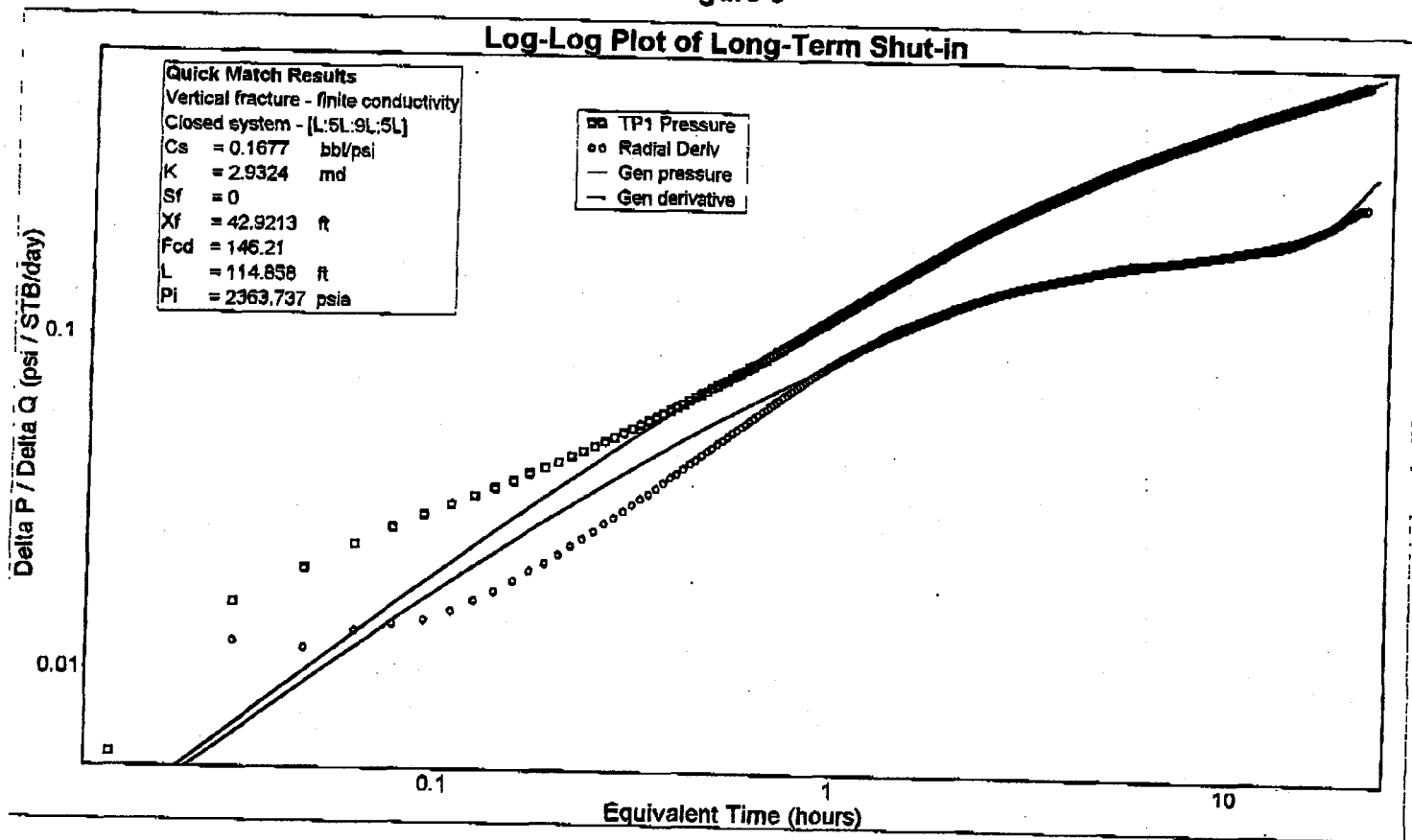


Figure 3



Doyne/

DOWELL SCHLUMBERGER INCORPORATED

DATE _____

ATE
4-19-96

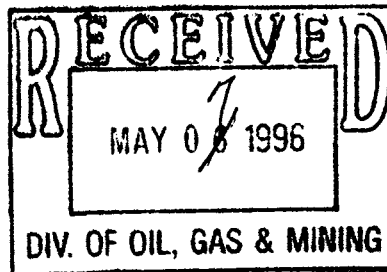
DS-494-C PRINTED IN U.S.A.

WELL NAME AND NUMBER D-3	LOCATION (LEGAL)	DS LOCATION Vernal, ut.	TREATMENT NUMBER 0674
POOL/FIELD Drunkards wash	FORMATION	BOTTOM HOLE TEMPERATURE	AGE OF WELL NEW <input checked="" type="checkbox"/> REWORK <input type="checkbox"/>
COUNTY/PARISH Carbon	STATE utah	ALLOWABLE PRESSURE	OIL <input type="checkbox"/> TYPE OF WELL GAS <input type="checkbox"/> WATER <input type="checkbox"/> INJ. <input checked="" type="checkbox"/>
TYPE OF SERVICE <input checked="" type="checkbox"/> MATRIX TREATMENT <input type="checkbox"/> SAND CONTROL <input type="checkbox"/> FRACTURING <input checked="" type="checkbox"/> OTHER	PRIMARY TREATING FLUID KCL Water	TBG: 7" CSG.	PERFORATED INTERVALS
OPERATOR NAME River Gas		CASING SIZE WT DEPTH 7" 26# 5930	TOP TO BOTTOM NO. OF HOLES
SERVICE INSTRUCTIONS Pressure test 7" 26" casing with KCL water		TUBING SIZE WT DEPTH	
		PACKER TYPE PACKER DEPTH	
		TUBING VOLUME ANNULAR VOL	
		OPEN HOLE CASING VOL.	
		DISPLACEMENT	
FOR CONVERSION PURPOSES 24 BBLs EQUALS 1000 GALLONS		C. TBG. TUBING	JOB DONE DOWN CASING ANNULUS BOTH
ARRIVED ON LOCATION: 09:00	LEFT LOCATION: 13:00		

[illegible]

BPM AVERAGE INJECTION RATES					VOLUME FLUID INJECTED			CARBON DIOXIDE	
FLUID	NITROGEN	CARBON DIOXIDE	TOTAL W/PROP		WATER/ACID	OIL	NITROGEN	TONS	
					BBLs	BBLs	CCF		
TREATING PRESSURE SUMMARY					QUANTITY PROPAGANT PLACED				
MAXIMUM	FINAL	AVERAGE	IMMED. S.D.P.	15 MIN S.I.P.	TOTAL INJECTED	TOTAL ORDERED/DESIGNED			
7000	7000	1800	2000	2000		LBS			
PRODUCTION PRIOR TO THIS TREATMENT					<input type="checkbox"/> Test <input type="checkbox"/> Stabilized				
CUSTOMER REPRESENTATIVE			OS SERVICE SUPERVISOR		FRACTURE GRADIENT			PAGE _____ OF _____ PAGES	
			Selwyn Simper						

APPLICATION FOR INJECTION WELL - UIC FORM 1



OPERATOR River Gas Corporation
ADDRESS 511 Energy Center Blvd.
Northport, AL 35476

Well name and number: Utah D-3

Field or Unit name: Drunkards Wash Lease no. ML-38666

Well location: QQ NW/SW section 18 township 15S range 10E county Carbon

Is this application for expansion of an existing project? . . Yes ☒ No ☐

Will the proposed well be used for:

Enhanced Recovery?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Disposal?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Storage?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

Is this application for a new well to be drilled? Yes ☒ No ☐

If this application is for an existing well,
has a casing test been performed on the well? Yes ☒ No ☐

Date of test: 4/19/96
API number: 4300730290

Proposed injection interval: from 5,600' to 6,100'

Proposed maximum injection: rate 28,800 BWPD pressure 1820 psig

Proposed injection zone contains ☐ oil, ☐ gas, and/or ☐ fresh water within ½ mile of the well.

IMPORTANT: Additional information as required by R615-5-2 should accompany this form.

List of Attachments: casing description, casing test, water analyses, swabbing
informantion, evidence and data, copies of logs

I certify that this report is true and complete to the best of my knowledge.

Name Callen Hurtt Signature Callen Hurtt
 Title Technical Assistant Date ~~5/6/96~~ 5/6/96
 Phone No. (205) 759-3282

(State use only)
Application approved by _____ Title _____
Approval Date _____

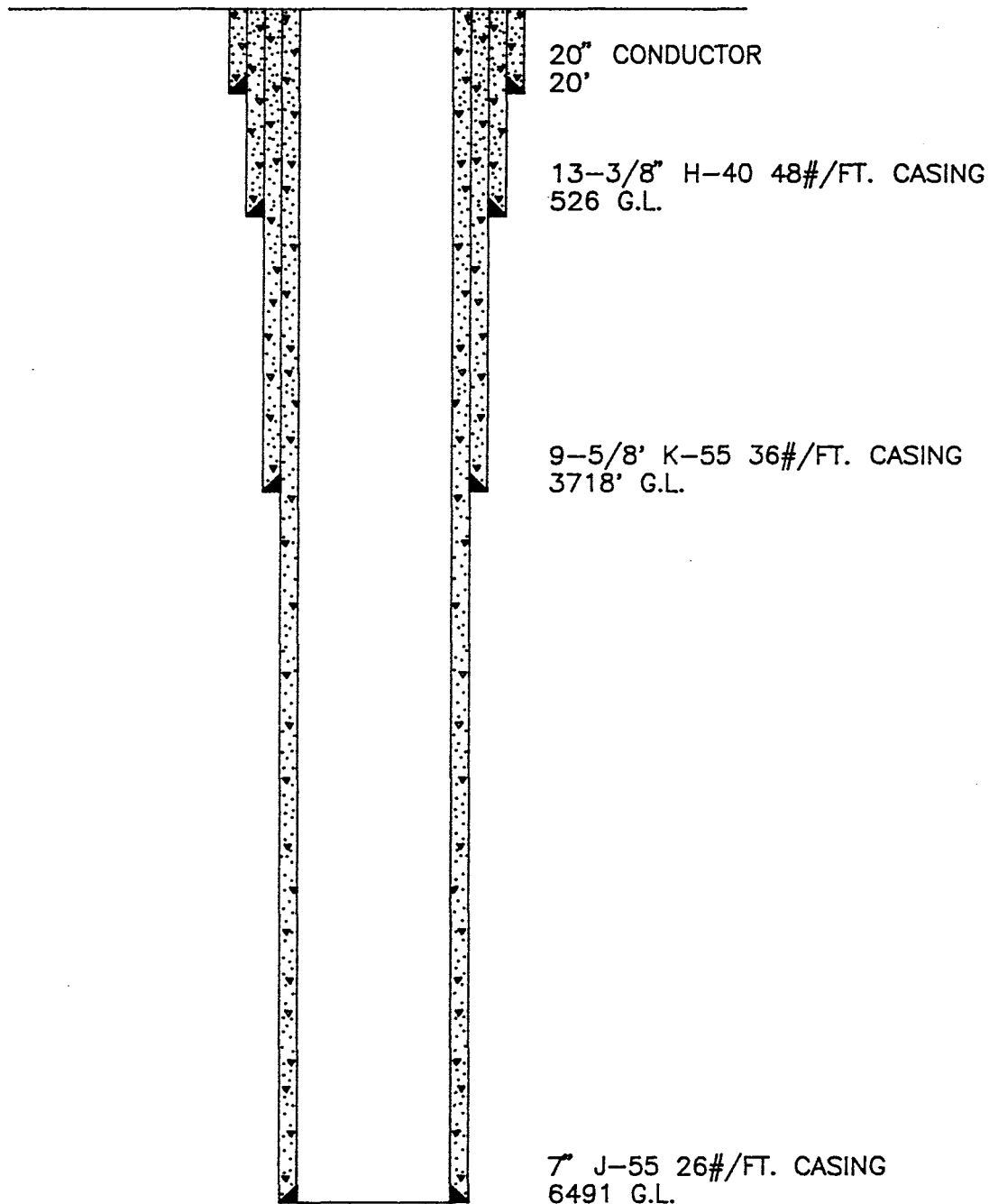
Comments:

PROPOSED DISPOSAL WELL D-3

SEC. 18, T 15 S, R 10 E

(1600' FSL, 1126 FWL)

CARBON COUNTY, UTAH



PRESSURE TEST CASING FOR
D-3!

Curve 1 : Unit 1 Pressure
Curve 2 : Unit 1 Pump 1 Flow rate
Curve 3 : Disabled
Curve 4 : Disabled

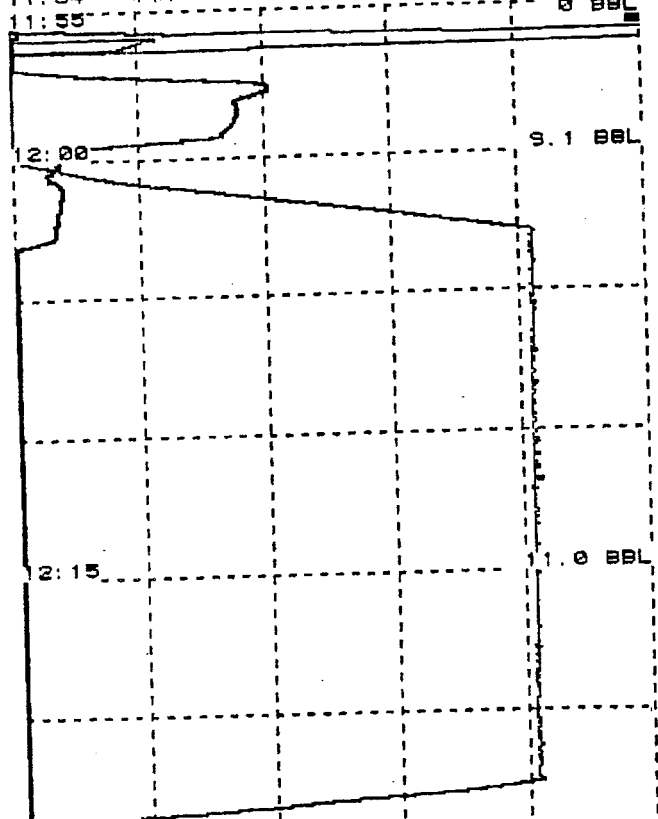
Volume is computed from :

Unit 1 Pump 1 Flow rate

Scan Period (Sec) : 4

Playback : Recording Rate was 4 seconds

09:47 *** 0 PSI 2500
PAUSE 0 BPM 10
11:54 *** 0 0 BBL
11:55



NATURE SAVER™ FAX MEMO 01615

Date 4/22/96 # of pages 4

To	JOHN HOLLINGSHEAD	From	
On	ATA "BIG TOWN"	Co.	
Phone #		Phone #	
Fax #	758-5309	Fax #	637-8924 Fe

END JOB
12:24 *** 0 11.0
END OF REPLAY

BASIC ACQUISITION MODE

CEMENT JOB

REAL-TIME MODE - OIL UNITS

DATE: 19/04/96

TIME: 12:30

Attachment #2

A. Type: Produced Water
B. Source: Ferron Coal Group
C. Volume: 28,800 BWPD

Attachment #3

A. Fluid Injected:

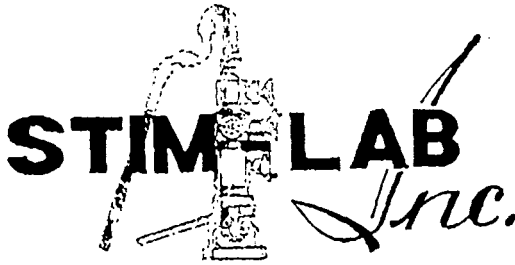
A sample of produced water was analyzed by Stim-Lab Inc. and the results are shown under the "Injection" column of the attached report.

B. D-3 Formation Fluid:

Two laboratories, Stim-Lab Inc. & Chemtech-Ford, analyzed the formation water from D-3. Their findings are shown on the attached reports.

C. Compatability Produced & Formation Waters:

Stim-Lab Inc. conducted this test and the results are shown at the bottom of their report.



7406 N. 81 HIGHWAY • P. O. BOX 1644 • DUNCAN, OKLAHOMA 73534
TELEPHONE 405/252-4309 • FAX NUMBER 405/252-6979

GLENN PENNY
President

May 6, 1996

John Hollingshead
River Gas Corp.
3600 Watermelon Rd..
Suite 205
Northport, AL 35476

RE: Analysis of Injection Water Compatibility with Navajo Connate Water, Project SL 4377

Dear Mr. Hollingshead,

STIM-LAB Inc. has completed both water analysis and simple compatibility study for mixing the proposed injection water at Drunkards Wash Field with a connate water sample from the proposed injection zone of the D-3 disposal well. Table 1 gives the analysis of both waters as received. Since neither were maintained in a pressurized state, the pH and carbonate values are most probably higher than would be the case in their natural state due to CO₂ release. Also, a considerable amount of precipitation of iron carbonate hydrate was present in the bottom of the connate water sample. Therefore, the dissolved iron value for this sample is most probably low. This may be the case also for the injection water as it was obtained from the holding pond where some settling of any precipitant may have also occurred. Previous experience with this injection water has shown that it has in the past precipitated iron carbonate hydrate requiring filtration before injection.

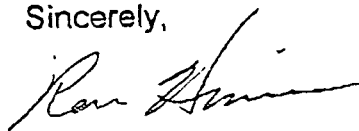
The compatibility study looked at mixing the two waters at three volume ratios as shown in Table 1. These were compared with a control mixed with deionized water. These show that some amount of carbonate formation occurred at all ratios with the injection water. A slight amount also occurred with the deionized water at the higher connate water ratio. The precipitant was mostly orange in color and readily soluble in 5% HCl with effervescence which would suggest at least a portion of it was iron carbonate hydrate. I would expect that with fresh samples maintained under pressure that the precipitation would be less or possibly not occur at all as CO₂ retained in solution would maintain a lower pH with mixing and limit precipitant formation.

Mr. John Hollingshead
May 6, 1996
Page 2

I understand an injection test was previously performed on the well with 6000 barrels of tap water. If the well was not flowed back and no formation crossflow is present, this should provide a suitable barrier to prevent any near-wellbore contact of fluids and limit the potential for scaling near the wellbore. If the well has been flowed since that time, I would recommend a preflush of tap water be injected ahead of the flood water. We can discuss the volumes further if needed. Keeping the injection water under pressure from the point of production to re-injection would also limit the amount of CO₂ evolution and reduce the possibility of carbonate formation. It should be pointed out that acid jobs performed on the D-1 well had minimal effect on injection pressure. This would indicate that carbonate precipitation near the wellbore was not a problem with the current injection system.

STIM-LAB Inc. appreciates the opportunity work with you on this project. If you have any questions regarding this testing, please feel free to give Mike Conway or myself a call.

Sincerely,



Ron Himes, Group Leader
Core Testing Group

RH



STIM-LAB
Inc.

Table 1

SL 4377

River Gas Corporation

D-3 Connate and Injection Water Analysis

Analyzed 5/1-5/2/96

	<u>Injection</u>	<u>Connate</u>
pH	8.71	6.14
Carbonate	420 mg/L	0 mg/L
Bicarbonate	3890 mg/L	705 mg/L
Chlorides	2518 mg/L	116163 mg/L
TDS	8402 mg/L	217264 mg/L
Sulfate	<1.6 mg/L	3390 mg/L
Calcium	17.5 mg/L	1390 mg/L
Magnesium	15.8 mg/L	465 mg/L
Iron	<2.5 mg/L	10.9 mg/L
Aluminum	<5.0 mg/L	<5.0 mg/L
Sodium	2600 mg/L	78500 mg/L
Potassium	63 mg/L	1500 mg/L
Hardness	109 mg/L	5386 mg/L

Examination of Injection and
Connate Water Compatibility

<u>Mixing Ratio</u> <u>Connate/Injection</u>	<u>FeCO₃/CaCO₃</u> <u>(mg/L)</u>	<u>Final</u> <u>pH</u>
75/25	95	6.88
50/50	127	7
25/75	85	7.38
 Mixing Ratio Connate & DI		
75/25	24	6.68
50/50	1	6.78
25/75	0	6.97

CHEMTECH-FORD

ANALYTICAL LABORATORIES

Date: 4/25/96

To: River Gas of Utah
290 South Highway 55
Price, UT 84501

Group #: 7633
Lab #: 96-U004171
Project: DRUNKARDS WASH
Sample Desc: Well D-3
Disposal Well

Date Sampled: 4/ 5/96
Date Submitted: 4/ 8/96

Time Sampled: 16:47
Time Received: 13:10

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Bicarbonate as HCO ₃ , mg/L	952	1	4/ 9/96 9:00	SM 2320B	TM
Carbonate as CO ₃ , mg/L	< 1	1	4/ 9/96 9:00	SM 2320B	TM
Alkalinity, Solids, mg/L	469	1	4/ 9/96 9:00	SM 2320B	TM
Hydroxide as OH, mg/L	< 1	1	4/ 9/96 9:00	SM 2320B	TM
Alkalinity, Total, mg/L	781	1	4/ 9/96 9:00	SM 2320B	TM
Carbon Dioxide, mg/L	1,450	1	4/ 9/96 9:00	SM 4500 D	TM
Chloride, mg/L	129,000	500	4/10/96 11:00	EPA 325.3	TM
Conductance, Specific, umhos/cm	372,000	0.1	4/11/96 11:15	EPA 120.1	DI
Cyanide (T), mg/L	< 0.002	0.002	4/13/96 4:20	ASTM D2036	DI
Fluoride, mg/L	< 0.5	0.5	4/12/96 11:45	EPA 340.2	DI
Hardness, EDTA Titration, mg/L	5,250	50	4/13/96 11:00	EPA 130.2	TM
Mercury (T), as Hg, mg/L	0.0004	0.0003	4/10/96 15:08	EPA 245.1	KA
Nitrite, Nitrogen, mg/L	0.010	0.005	4/ 8/96 17:00	EPA 354.1	KA
Nitrate/Nitrite-Nitrogen, mg/L	1.1	0.4	4/10/96 10:05	EPA 353.1	TH
pH, Units	5.70	0.05	4/ 8/96 15:00	EPA 150.1	LS
Phosphorus, Ortho, mg/L	< 0.01	0.01	4/ 9/96 17:15	SM 4500	KA
Sulfate, mg/L	3,760	1000	4/11/96 14:30	EPA 375.4	TM
Total Dissolved Solids, mg/L	215,000	250	4/15/96 2:05	EPA 160.1	MO
Total Suspended Solids, mg/L	528	2.5	4/ 8/96 15:30	EPA 160.2	LS
Turbidity, NTU	402	0.05	4/ 8/96 15:00	EPA 180.1	LS
Antimony (T), as Sb, mg/L	< 0.4	0.4	4/17/96 13:09	EPA 200.7	LH

Approved By: 

{generic.rpt}

301 262 7298 PHONE
301 262 7378 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905

CHEMTECH-FORD

ANALYTICAL LABORATORIES

To: River Gas of Utah
290 South Highway 55
Price, UT 84501

Date: 4/25/96

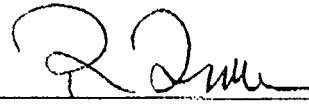
Group #: 7633
Lab #: 96-U004171
Project: DRUNKARDS WASH
Sample Desc: Well D-3
Disposal Well

Date Sampled: 4/ 5/96
Date Submitted: 4/ 8/96

Time Sampled: 16:47
Time Received: 13:10

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Arsenic (T), as As, mg/L	< 0.3	0.3	4/17/96 13:09	EPA 200.7	LH
Barium (T), as Ba, mg/L	0.23	0.05	4/17/96 13:09	EPA 200.7	LH
Beryllium (T), as Be, mg/L	< 0.005	0.005	4/17/96 13:09	EPA 200.7	LH
Cadmium (T), as Cd, mg/L	< 0.025	0.025	4/17/96 13:09	EPA 200.7	LH
Calcium (T), as Ca, mg/L	1,150	0.5	4/17/96 13:09	EPA 200.7	LH
Chromium (T), as Cr, mg/L	0.06	0.025	4/17/96 13:09	EPA 200.7	LH
Copper (T), as Cu, mg/L	0.19	0.05	4/17/96 13:09	EPA 200.7	LH
Iron (T), as Fe, mg/L	62.6	0.05	4/17/96 13:09	EPA 200.7	LH
Lead (T), as Pb, mg/L	< 0.2	0.2	4/17/96 13:09	EPA 200.7	LH
Magnesium (T), as Mg, mg/L	315	0.5	4/17/96 13:09	EPA 200.7	LH
Manganese (T), as Mn, mg/L	0.90	0.05	4/17/96 13:09	EPA 200.7	LH
Nickel (T), as Ni, mg/L	< 0.05	0.05	4/17/96 13:09	EPA 200.7	LH
Potassium (T), as K, mg/L	840	0.5	4/17/96 13:09	EPA 200.7	LH
Selenium (T), as Se, mg/L	< 0.4	0.4	4/17/96 13:09	EPA 200.7	LH
Silver (T), as Ag, mg/L	< 0.025	0.025	4/17/96 13:09	EPA 200.7	LH
Sodium (T) by difference, mg/L	83,300	5	4/24/96	CAL	LH
Thallium (T), as Tl, mg/L	< 0.75	0.75	4/17/96 13:09	EPA 200.7	LH
Zinc (T), as Zn, mg/L	0.27	0.05	4/17/96 13:09	EPA 200.7	LH
Cation, meq/L	3,730		4/24/96		RR
Anion, meq/L	3,730		4/24/96		RR
% Difference,	0.02		4/24/96		RR

Approved By: 

{generic.rpt}

801 262 7299 PHONE
801 262 7378 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905

CHEMTECH-FORD

ANALYTICAL LABORATORIES



To: River Gas of Utah
290 South Highway 55
Price, UT 84501

Date: 4/25/96

Group #: 7633
Lab #: 96-U004171
Project: DRUNKARDS WASH
Sample Desc: Well D-3
Disposal Well

Date Sampled: 4/ 5/96
Date Submitted: 4/ 8/96

Time Sampled: 16:47
Time Received: 13:10

CERTIFICATE OF ANALYSIS

PARAMETER	RESULT	MDL	DATE ANALYZED	METHOD	ANALYST
INORGANIC PARAMETERS					
Receiving Temperature, C	-2	0	4/ 8/96 13:10		RCG

NOTE: Sample submitted on ice.
Sample submitted past holding time for Cr(Hex),
NO2, Ortho-P, & Turbidity.
Sample destroyed a \$100 tube on graphite furnace.
Electrical conductivity caused us to run all metal
by ICP.

Approved By: RDM

{generic.rpt}

801 262 7299 PHONE
801 262 7378 FAX

6100 SOUTH STRATLER
SALT LAKE CITY UTAH 84107 6905

Attachment #4

A. Proposed Average Injection Pressure:

Proposed average = 1820 psi

B. Maximum Injection Pressure:

$$(.735 \text{ psi/ft} - .433 \text{ psi/ft})(6035 \text{ ft}) = 1822 \text{ psi}$$

Summary of events leading up to swabbing for formation water

The cementing of the 7" production casing was completed at 12:45 P.M. on 3/31/96. The drilling rig was rigged down and off location late P.M. of 4/1/96. The following morning, 4/2/96, the completion rig was spotted, rigged up, and BOP's nipped up. Milling operations on the D.V. tool (4095'G.L.) commenced at 2:00 P.M. of the same day. By mid P.M. 4/2/96, the mill was lowered to 6442', and the hole was circulated for four hours. Fluid circulation continued for an additional two hours in the A.M. of 4/3/96. At noon of the same day, wireline was rigged up and run in the hole to bond log the production string. The late P.M. was spent running in the hole with a 7" RTTS packer and a 2 7/8" tubing string. On A.M. 4/4/96, fluid level was swabbed down to 5000'. The tubing and packer was tripped out of the hole by 2:00 P.M.. Perforators were rigged up and run in the hole to shoot the casing from 6030'-6040' 6 spf. By late P.M., perforators were out of the hole. The packer and tubing was started in the hole. The packer was set at 6015' by early A.M. on 4/5/96. The hole was swabbed from 8:00 P.M. to 5:00 P.M. of the same day. The swab runs were as follows:

<u>RUN #</u>	<u>TIME</u>	<u>FLUID HIT(FT.)</u>	<u>PULL FROM(FT.)</u>	<u>FLUID RECOVERED(FT.)</u>
1.	8:00 A.M.	2100	3800	1600
2.	8:20 A.M.	3700	5100	1500
3.	8:40 A.M.	4900	6000	1200
4.	9:00 A.M.	5600	6000	400
5.	9:20 A.M.	5600	6000	400
6.	9:40 A.M.	5600	6000	400
7.	10:00 A.M.	5700	6000	300
8.	10:40 A.M.	5700	6000	300
9.	10:52 A.M.	5700	6000	300
10.	11:12 A.M.	5500	6000	500
11.	11:30 A.M.	5700	6000	300
12.	11:50 A.M.	5700	6000	300
13.	12:10 A.M.	5700	6000	300
14.	12:30 P.M.	5700	6000	300
15.	12:50 P.M.	5700	6000	300
16.	1:10 P.M.	5700	6000	300
17.	1:30 P.M.	5700	6000	300
18.	1:50 P.M.	5700	6000	300
19.	2:10 P.M.	5700	6000	300
20.	2:30 P.M.	5700	6000	300
21.	2:50 P.M.	5700	6000	300
22.	3:20 P.M.	5700	6000	300
23.	3:40 P.M.	5750	6000	250
24.	4:00 P.M.	5700	6000	300
25.	4:20 P.M.	5750	6000	250
26.	4:40 P.M.	5750	6000	250<--1st run
27.	5:00 P.M.	5700	6000	300<--2nd run
				11,850

<-- denotes runs that State samples were caught from.

11,850 ft. fluid recovered (68.6 bbls.)

Attachment #6

Evidence and Data:

A step rate test was conducted to determine the fracture extension pressure. The pressure realized was 4438 psi at a mid-point perforation of 6035 ft. This pressure translates into a frac gradient of $.735 \text{ psi/ft}$ which was used in attachment #4 to determine a maximum injection pressure at the surface. A detailed report has been attached for review.

ANALYSIS of INJECTION TESTS PERFORMED on WELL D-3 in DRUNKARDS WASH CARBON COUNTY, UTAH

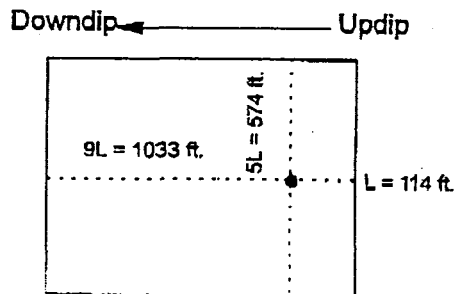
On April 9, 1996, two step rate tests and 1 long term injection test at constant rate were conducted to determine the fracture parting pressure (fracture extension pressure) on the Wingate interval perforated from 6030 - 40 ft. The surface readout gauge used during the injection stages was placed at ± 6060 ft. and the retrievable gauge used to monitor pressure during the extended shut-in was hung in the collar at 6058 ft. All reported pressures were adjusted to 6035 ft which represents the mid point of the perforations.

EXECUTIVE SUMMARY

The initial bottom hole pressure was 2351 psi. During the first step rate injection test, the reservoir flow capacity was increasing as the rate increased at the low flow rates. Therefore, the rate was increased in steps up to 25 BPM to create a hydraulic fracture and ensure that all the Wingate formation was taking fluid. The pressure was allowed to decline below 3000 psi and a second step rate was conducted. The analysis of the data (figure 1) shows that *the fracture extension pressure was 4438 psi which represents a fracture gradient of 0.735 psi/ft.* After the pressure had declined to 3159 psi, a 12 hr injection at 2 BPM was conducted. The data was successfully modeled with a short, finite conductivity fracture and an injection permeability of 5.5 md (figure 2). This analysis confirmed that the previously created fracture did not extend during the constant rate injection even at the ending injection pressure of 4431 psi. The pressure decline was then monitored for 133 hours to determine reservoir permeability. The principal findings were:

1. *The Wingate permeability in the vicinity of the wellbore is approximately 3 md (figure 3).* The reduced permeability compared to the measured core permeability's of 10-50 md is due to the crossbedding.

2. *The pressure behavior is best modeled by a well setting near one end of a bounded rectangle with the following dimensions.*



3. The same crossbedding previously mentioned is most likely the cause of the boundaries observed. Experiences with well D-1 would suggest that the boundaries are not completely sealing boundaries, but "leak" pressure and fluid at a much reduced permeability.

Figure 1: Analysis of Step Rate Test to Determine Fracture Extension Pressure

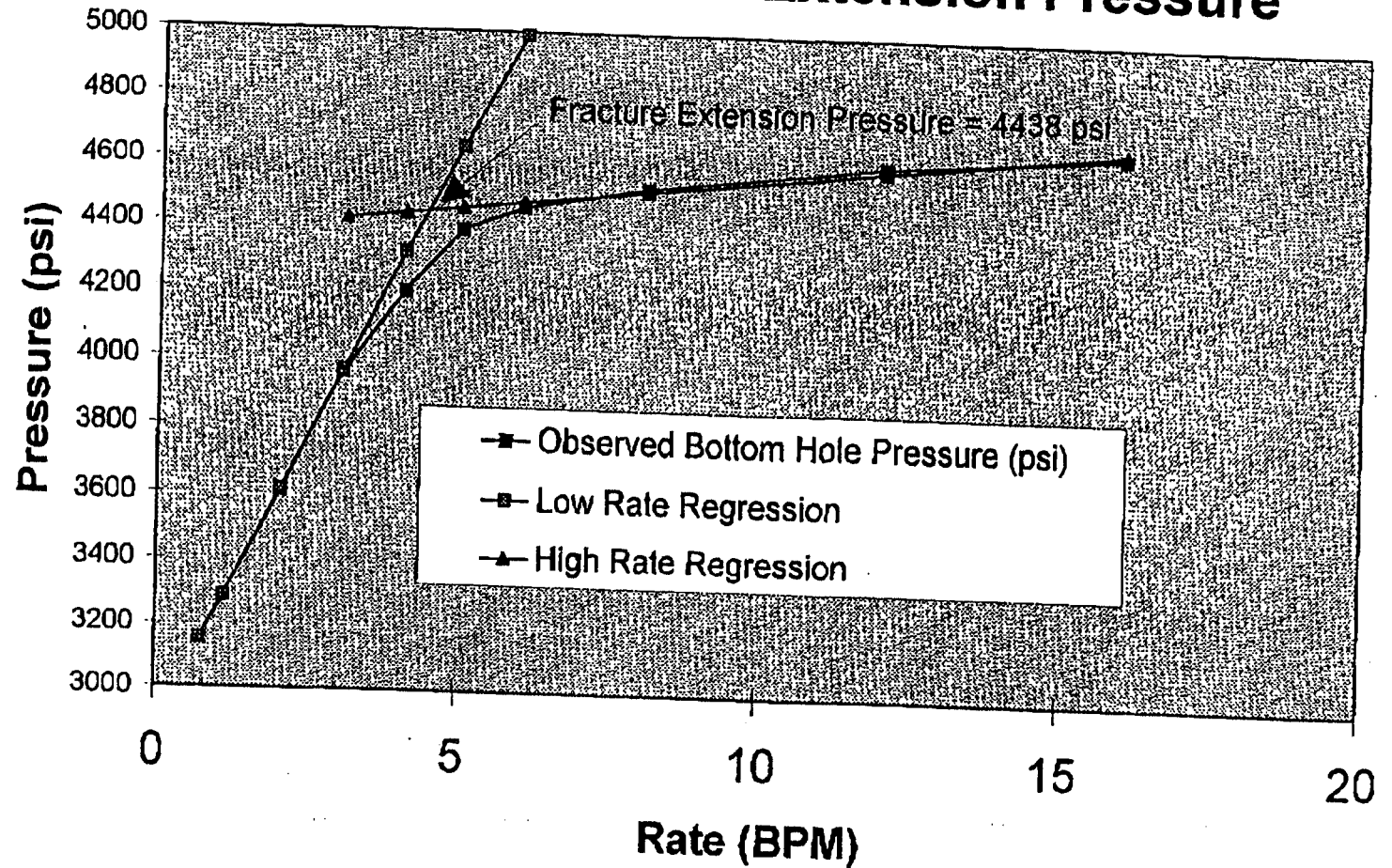


Figure 2

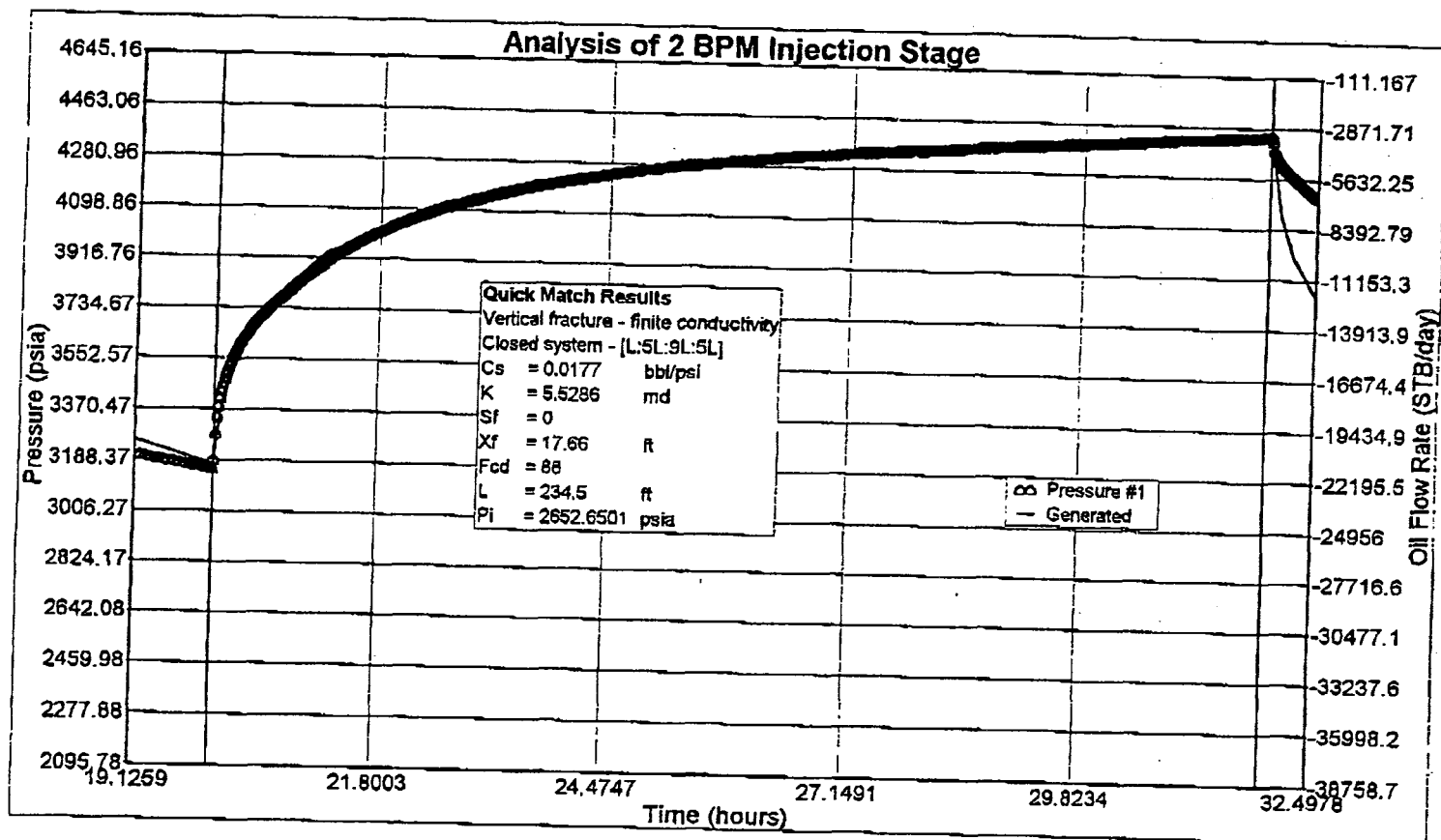
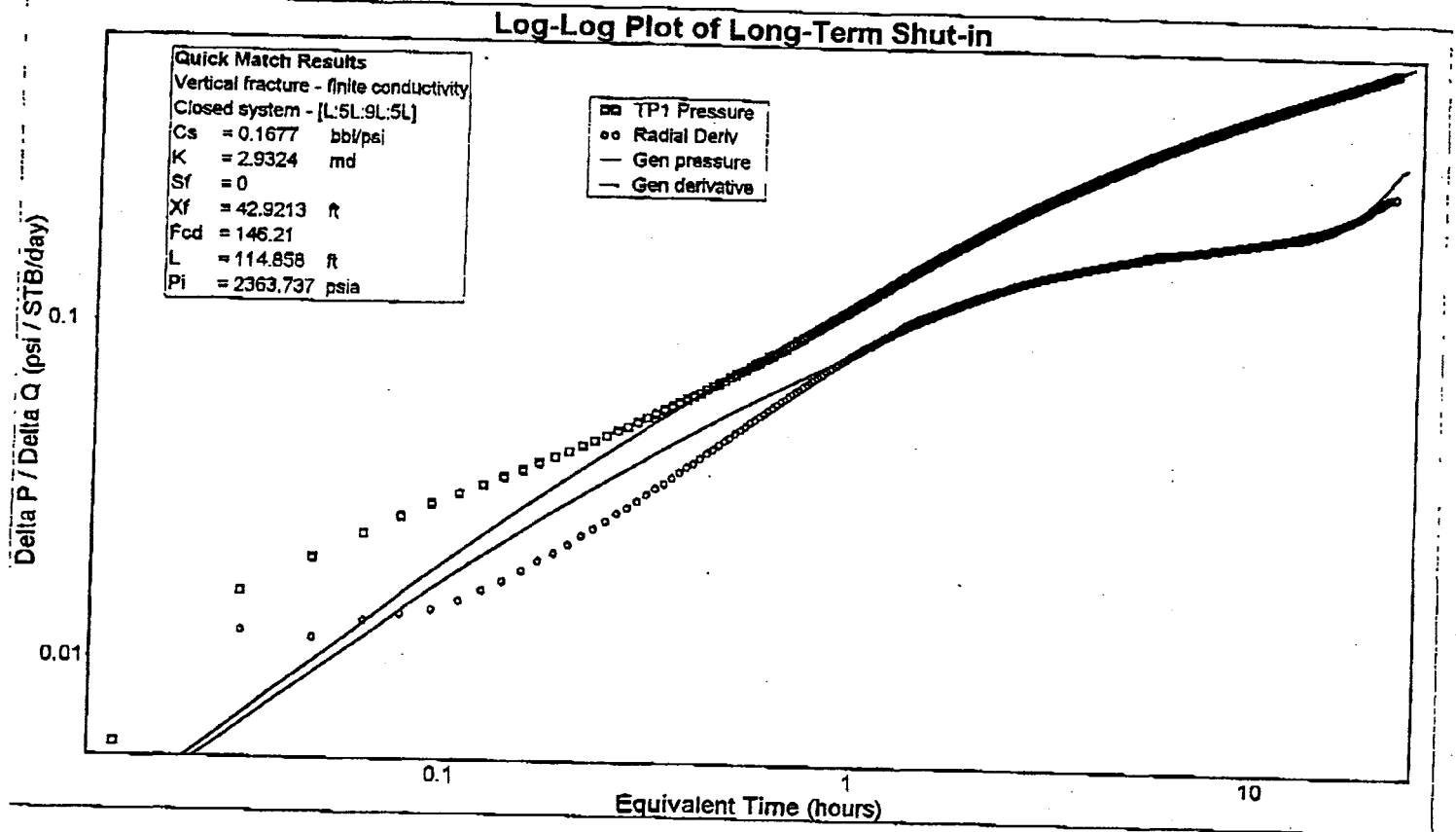


Figure 3





AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: State of Utah - Oil, Gas, and Mining
Date Sampled: April 5, 1996
Lab Sample ID.: 25542-02
Field Sample ID.: River Gas/Swab #2

Contact: Brad Hill
Date Received: April 8, 1996
Received By: Elona Hayward
Set Description: Two Water Samples

Analytical Results

	<u>Method Used:</u>	<u>Detection Limit:</u> mg/L	<u>Amount Detected:</u> mg/L
TOTAL METALS			
Calcium	6010	0.05	1,400.
Magnesium	6010	0.05	380.
Potassium	6010	0.1	1,300.
Sodium	6010	0.1	98,000.

OTHER CHEMISTRIES

Bicarbonate (as CaCO ₃)	310.1	10.	810.
Bromide	320.1	0.05	9.4
Carbonate (as CaCO ₃)	310.1	10.	<10.
Chloride	4500 CLB	0.5	130,000.
† Conductivity	120.1	10.	150,000.
* Nitrate (as N)	353.2	0.1	<0.1
pH	150.1	0.1	6.5
Sulfate	375.4	5.0	4,800.
TDS	160.1	1.0	230,000.

† Conductivity reported in µmhos/cm @ 25 C.

* The detection limits were raised due to sample matrix interference.

Released by: _____

Laboratory Supervisor

Report Date 4/16/96

1 of 1

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463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687



AMERICAN
WEST
ANALYTICAL
LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

INORGANIC ANALYSIS REPORT

Navajo A

Client: State of Utah - Oil, Gas, and Mining
Date Sampled: May 22, 1996
Lab Sample ID.: 25984-01
Field Sample ID.: River Gas D-3

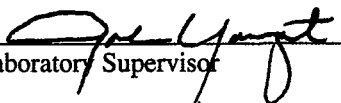
Contact: Dan Jarvis
Date Received: May 22, 1996
Received By: Laurie Hastings
Set Description: One Water Sample

Analytical Results

	Method Used:	Reporting Limit: mg/L	Amount Detected: mg/L
TOTAL METALS			
Calcium	6010	0.05	1,700.
Magnesium	6010	0.05	350.
Potassium	6010	0.1	2,200.
Sodium	6010	0.1	57,000.
OTHER CHEMISTRIES			
Bicarbonate (as CaCO ₃)	310.1	10.	830.
Chloride	4500 CLB	0.5	70,000.
† Conductivity	120.1	10.	89,000.
pH	150.1	0.1	6.0
Sulfate	375.4	5.0	3,500.
TDS	160.1	1.0	130,000.

† Conductivity reported in $\mu\text{mhos/cm}$ @ 25 C.

Released by:


Laboratory Supervisor

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Report Date 5/31/96



INORGANIC ANALYSIS REPORT

D-3 well
wingate
wingate

Client: State of Utah - Oil, Gas, and Mining
Date Sampled: April 5, 1996
Lab Sample ID.: 25542-01
Field Sample ID.: River Gas/Swab #1

Contact: Brad Hill
Date Received: April 8, 1996
Received By: Elona Hayward
Set Description: Two Water Samples

Analytical Results

	<u>Method Used:</u>	<u>Detection Limit:</u> mg/L	<u>Amount Detected:</u> mg/L
TOTAL METALS			
Calcium	6010	0.05	1,300.
Magnesium	6010	0.05	400.
Potassium	6010	0.1	1,000.
Sodium	6010	0.1	95,000.

OTHER CHEMISTRIES

Bicarbonate (as CaCO ₃)	310.1	10.	810.
Bromide	320.1	0.05	8.8
Carbonate (as CaCO ₃)	310.1	10.	<10.
Chloride	4500 CLB	0.5	130,000.
†Conductivity	120.1	10.	150,000.
*Nitrate (as N)	353.2	0.1	<0.1
pH	150.1	0.1	6.5
Sulfate	375.4	5.0	5,000.
TDS	160.1	1.0	230,000.

† Conductivity reported in $\mu\text{mhos/cm}$ @ 25 C.

* The detection limits were raised due to sample matrix interference.

Released by:

Steve Butz
Laboratory Supervisor

Report Date 4/16/96

1 of 1

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RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)

May 10, 1996

Mr. Gil Hunt
State of Utah
Department of Natural Resources
Division of Oil, Gas, & Mining
3 Triad Center
Ste. 350
Salt Lake City, Ut 84180-1203

Dear Mr. Gil Hunt,

Please find enclosed a report containing the injection test analysis for the D-3 disposal well in the Drunkards Wash Unit. The report also includes a stimulation procedure and treatment design for the potential injection intervals (Wingate Sand, Navajo Sand). The 3-D simulator, GOPHER, was utilized to arrive at the proposed design. If you have any questions about the contents of the report, please call me at 205-759-3282. If you prefer, I would be happy to come to Salt Lake City to discuss the report in person.

Present plans are to stimulate this well the week of May 20 to May 24, 1996, if our proposal is approved. This aggressive time frame will help us better coordinate our available man-power and allow us to start construction on the surface facilities.

Your assistance with this matter is appreciated, and I will be touch with you soon.

Most cordially,

A handwritten signature in cursive script, appearing to read "John Hollingshead".

John Hollingshead
Reservoir Engineer

ANALYSIS OF INJECTION
TESTS PERFORMED ON WELL
D-3 IN DRUNKARDS WASH
CARBON COUNTY, UTAH

PREPARED FOR:

RIVER GAS CORPORATION
3600 WATERMELON ROAD
NORTHPORT, ALABAMA 35476

PREPARED BY:

STIM-LAB, INC.
7406 NORTH HWY 81
DUNCAN, OKLAHOMA 73534

P.O. NUMBER: VERBAL/JOHN HOLLINGSHEAD
FILE NUMBER: SL 4377

MICROFILMED

ANALYSIS of INJECTION TESTS PERFORMED on
WELL D-3 in DRUNKARDS WASH
CARBON COUNTY, UTAH

On April 9, 1996, two step rate tests and 1 long term injection test at constant rate were conducted to determine the fracture parting pressure (fracture extension pressure) on the Wingate interval perforated from 6030 - 40 ft. The surface readout gauge used during the injection stages was placed at ± 6050 ft. and the retrievable gauge used to monitor pressure during the extended shut-in was hung in the collar at 6058 ft. All reported pressures were adjusted to 6035 ft which represents the mid point of the perforations. The injection pressures were used to calibrate the stress model obtained from Dipole Sonic Log run in late March. Finally stimulation designs were prepared to maximize injectivity into the well.

EXECUTIVE SUMMARY

I. Fracture Extension Pressure and Permeability

The initial bottom hole pressure was 2351 psi. During the first step rate injection test, the reservoir flow capacity was increasing as the rate increased at the low flow rates. Therefore, the rate was increased in steps up to 25 BPM to create a hydraulic fracture and ensure that all the Wingate formation was taking fluid. The pressure was allowed to decline below 3000 psi and a second step rate was conducted. The analysis of the data (figure 1) shows that *the fracture extension pressure was 4438 psi which represents a fracture gradient of 0.735 psi/ft.* After the pressure had declined to 3159 psi, a 12 hr injection at 2 BPM was conducted. The data was successfully modeled with a short, finite conductivity fracture and an injection permeability of 5.5 md (figure 2). This analysis confirmed that the previously created fracture did not extend during the constant rate injection even at the ending injection pressure of 4431 psi. The pressure decline was then monitored for 133 hours to determine reservoir permeability. The principal findings were:

1. *The Wingate permeability in the vicinity of the wellbore is approximately 3 md (figure 3).* The reduced permeability compared to the measured core permeability's of 10-50 md is due to the crossbedding.

2. *The pressure behavior is best modeled by a well setting near one end of a bounded rectangle with the following dimensions.*

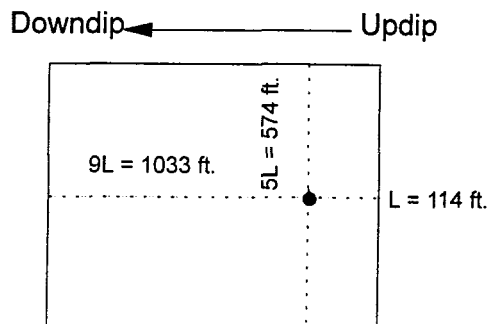


Figure 1: Analysis of Step Rate Test to Determine Fracture Extension Pressure

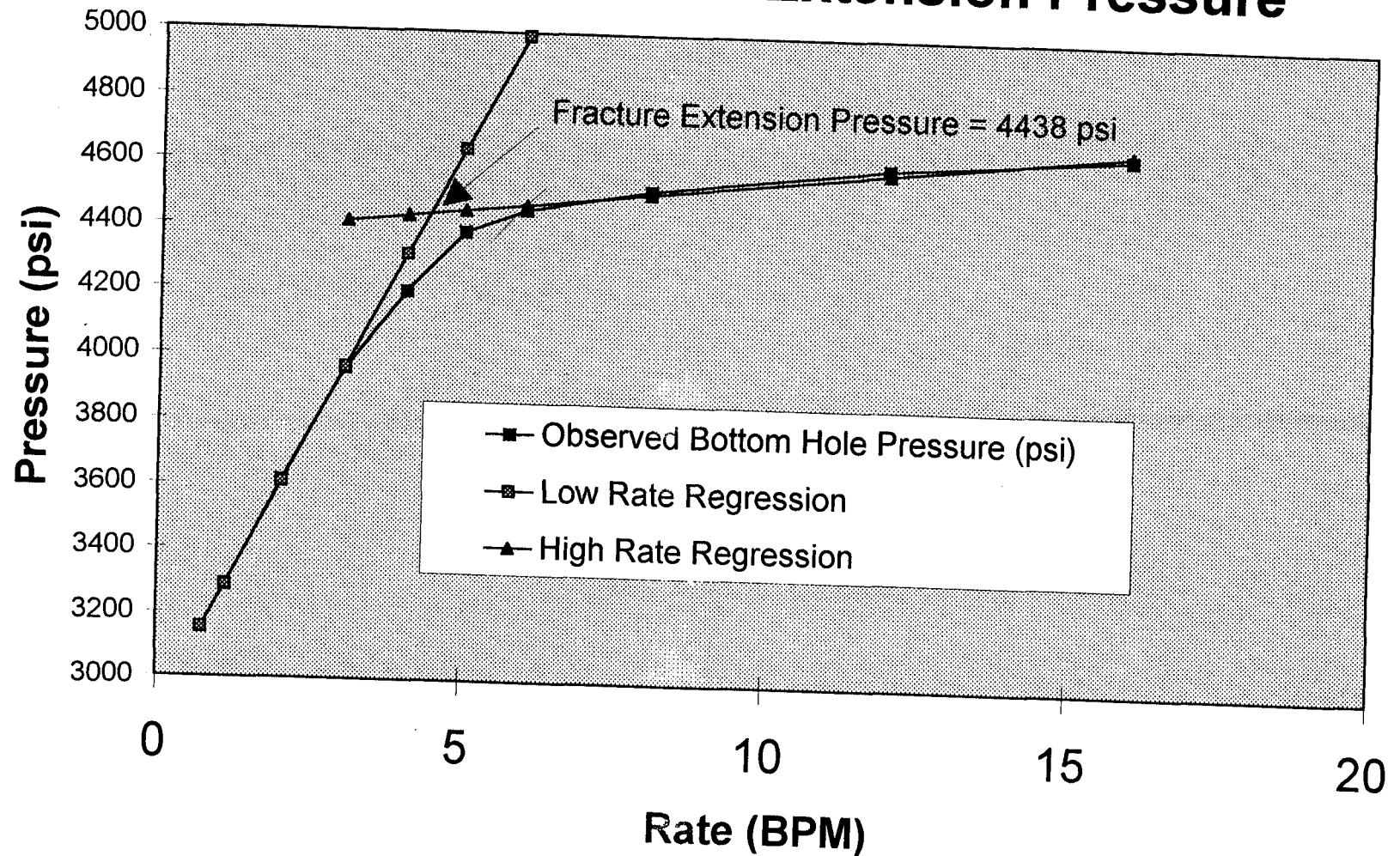


Figure 2

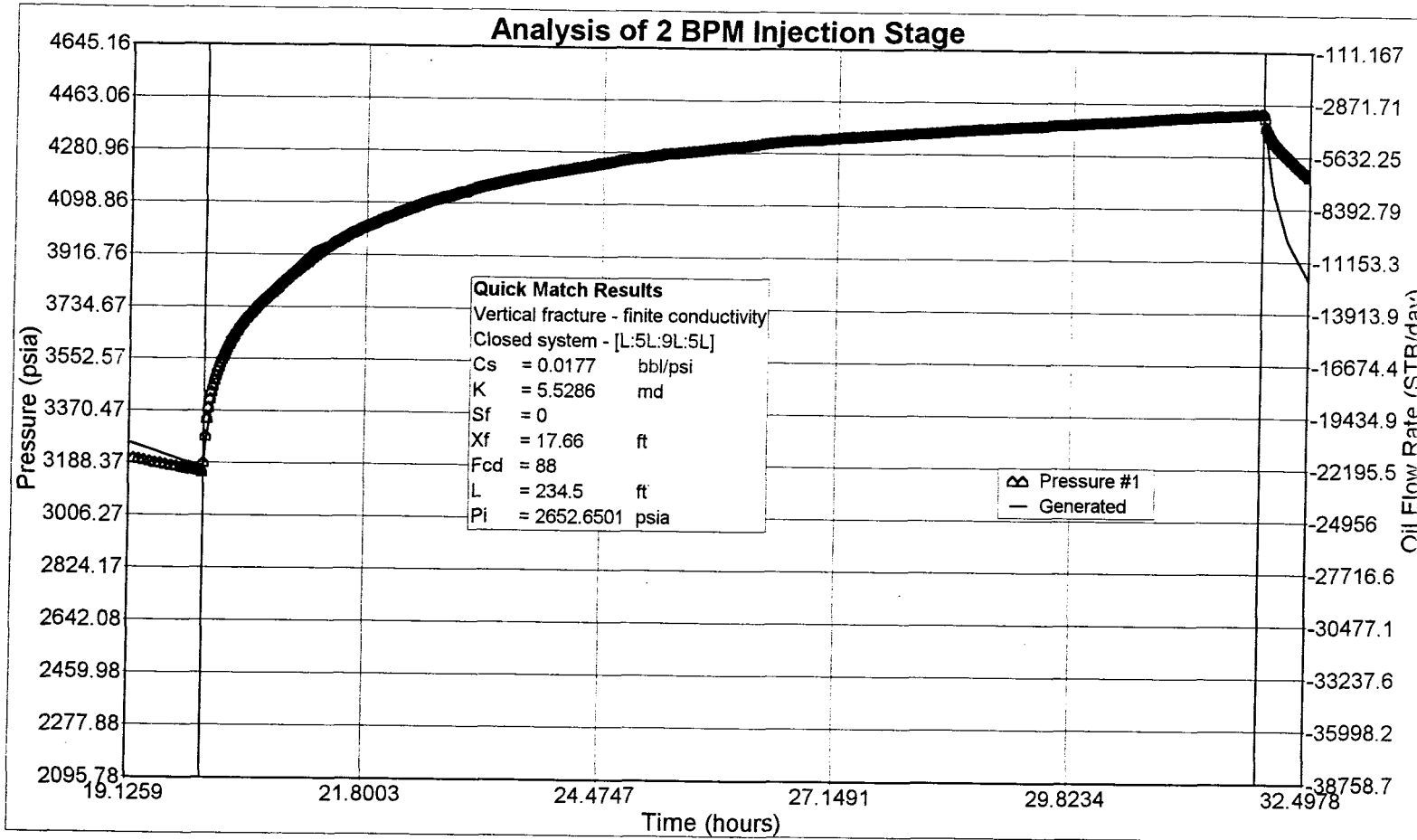
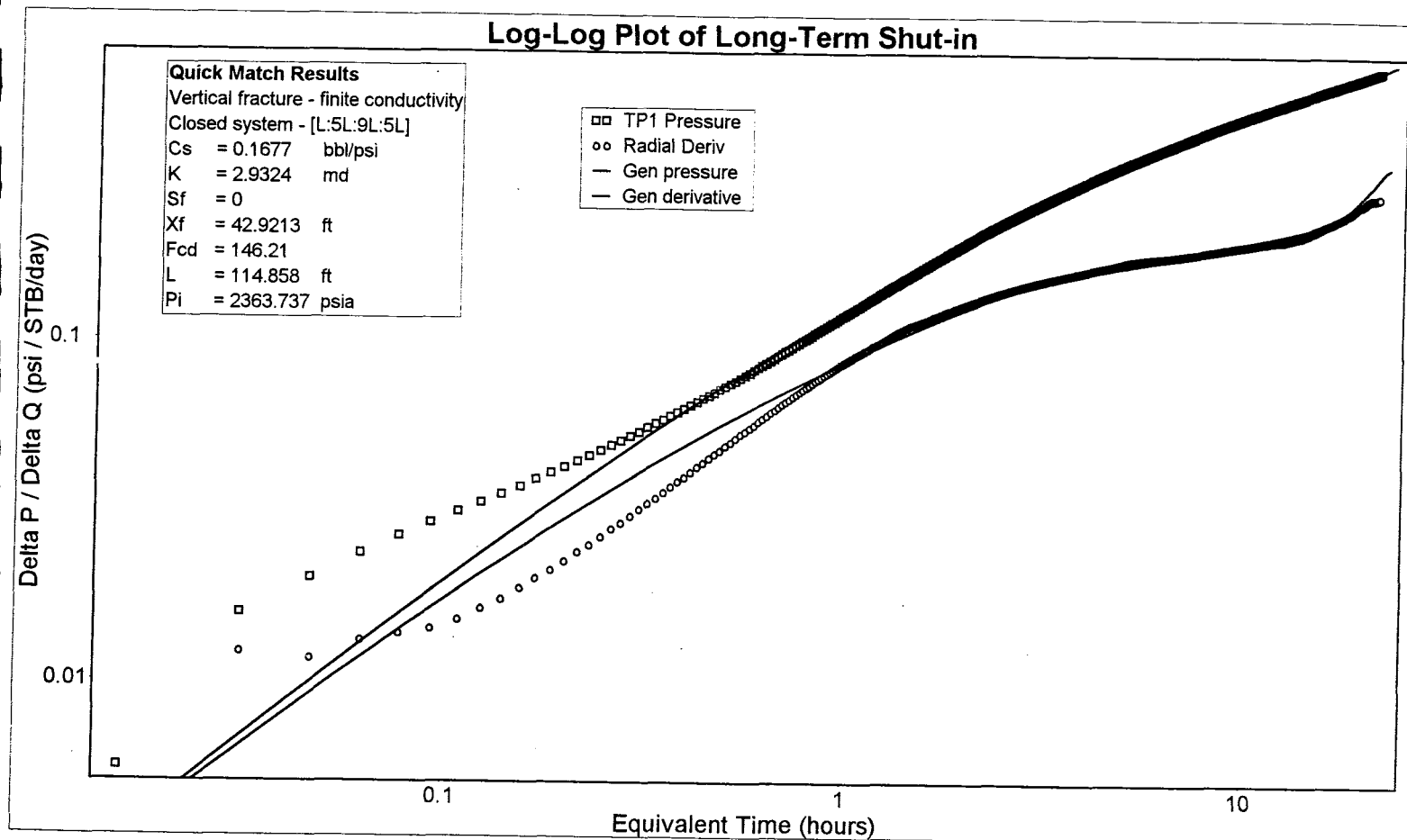


Figure 3



3. The same crossbedding previously mentioned is most likely the cause of the boundaries observed. Experiences with well D-1 would suggest that the boundaries are not completely sealing boundaries, but "leak" pressure and fluid at a much reduced permeability.

II. Stress Profile

The interpretation of the Dipole Sonic Log provides Young's Modulus and Poissons Ratio which are used to compute mechanical strength. Tectonic stresses must also be computed to determine the total stress. Injection data from the step rate test as modeled with the 3-D fracture design program, GOHFER (Grid Oriented Hydraulic Fracture Extension Replicator) was used to estimate the tectonic stress component.

1. The simulation match is shown in figure 4. The details of the simulation are given in Appendix A. The low rate data where the pressure is dominated by matrix leakoff cannot be modelled and is shown by a dashed line. The fracture dimensions at the end of pumping 44690 gal of water is given in figure 5: height = 240 ft, $x_f = 360$ ft.

2. The calibrated stress profile developed from the injection data and Dipole Sonic Log is shown in figures 6. *The principal feature is the very high stress, multiple barriers that cap the Navajo sandstone.*

III. Stimulation Design

Based on the limited injectivity observed in the Wingate injection test, a Hydraulic Fracturing strategy was developed to optimize the water disposal capacity of D-3. The areas of permeability that were targeted for stimulation are shown in figure 7.

1. Wingate: 5995-6055 ft: The created fracture during the water injection test was contained by the moderately higher stresses seen from 5950-5980 ft. This is basically the only barrier separating the Navajo from the Wingate. Therefore the design treatment size, pump rate and viscosity were selected which would not penetrate the barrier. The design is summarized in Table 1 and described in detail in Appendix B. The proppant concentration (lb/ft²) is given in figure 8.

Table 1

Fluid: 9950 gal of 40 lb/1000 gal Guar Proppant: 42,140 lb 20/40 sand
Treatment: Pump down tubing at 10 BPM.

Stage	Volume gallons	Sand Concentration lb/gallon
1	2000	0
2	500	1
3	500	2
4	500	3
5	1000	4
6	6000	6

Figure 4: Comparison of Predicted versus Actual Bottom Hole Pressure

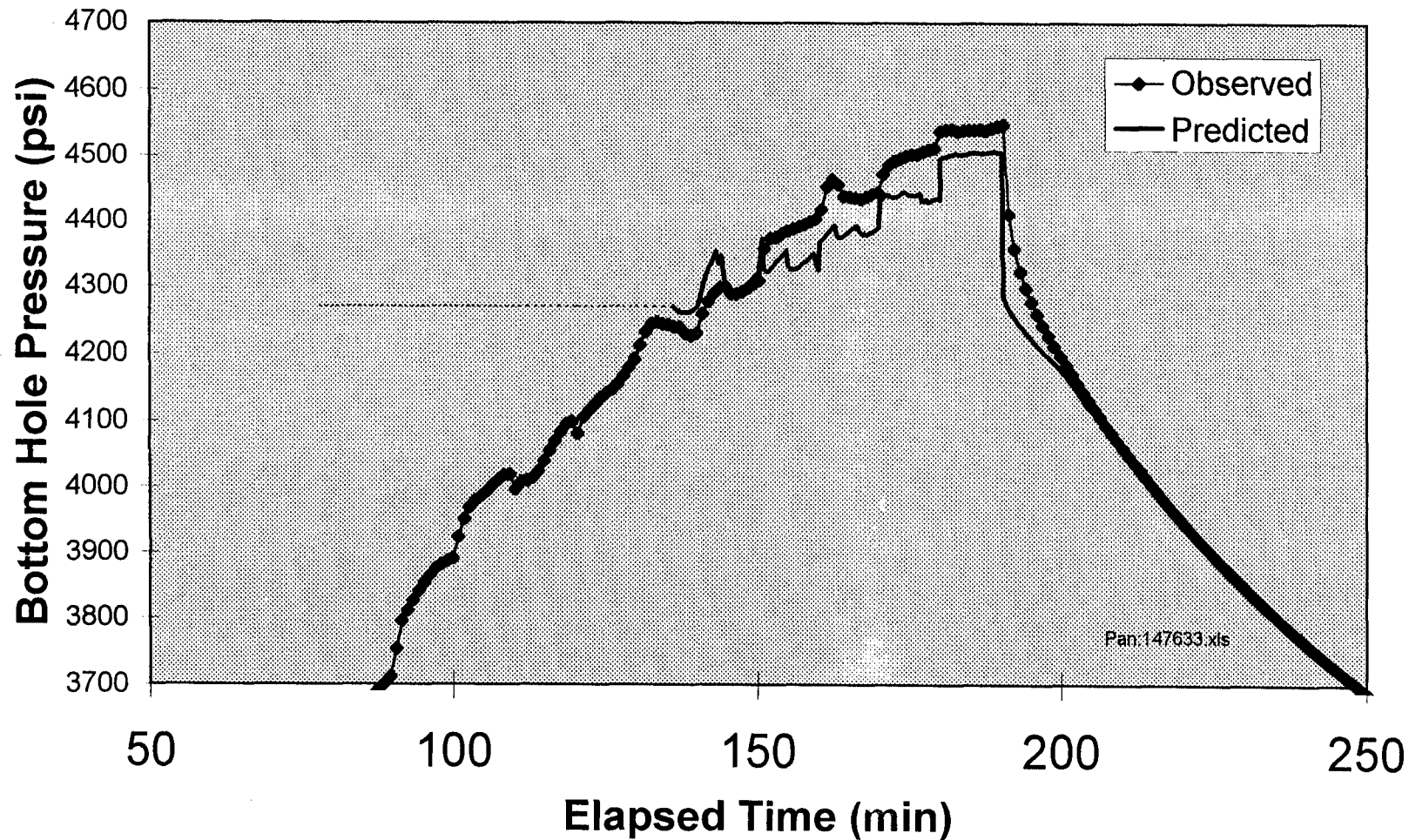


Figure 5

End of Pumping Fracture Width (inches)

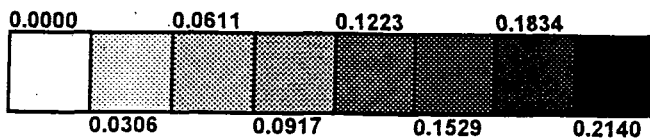
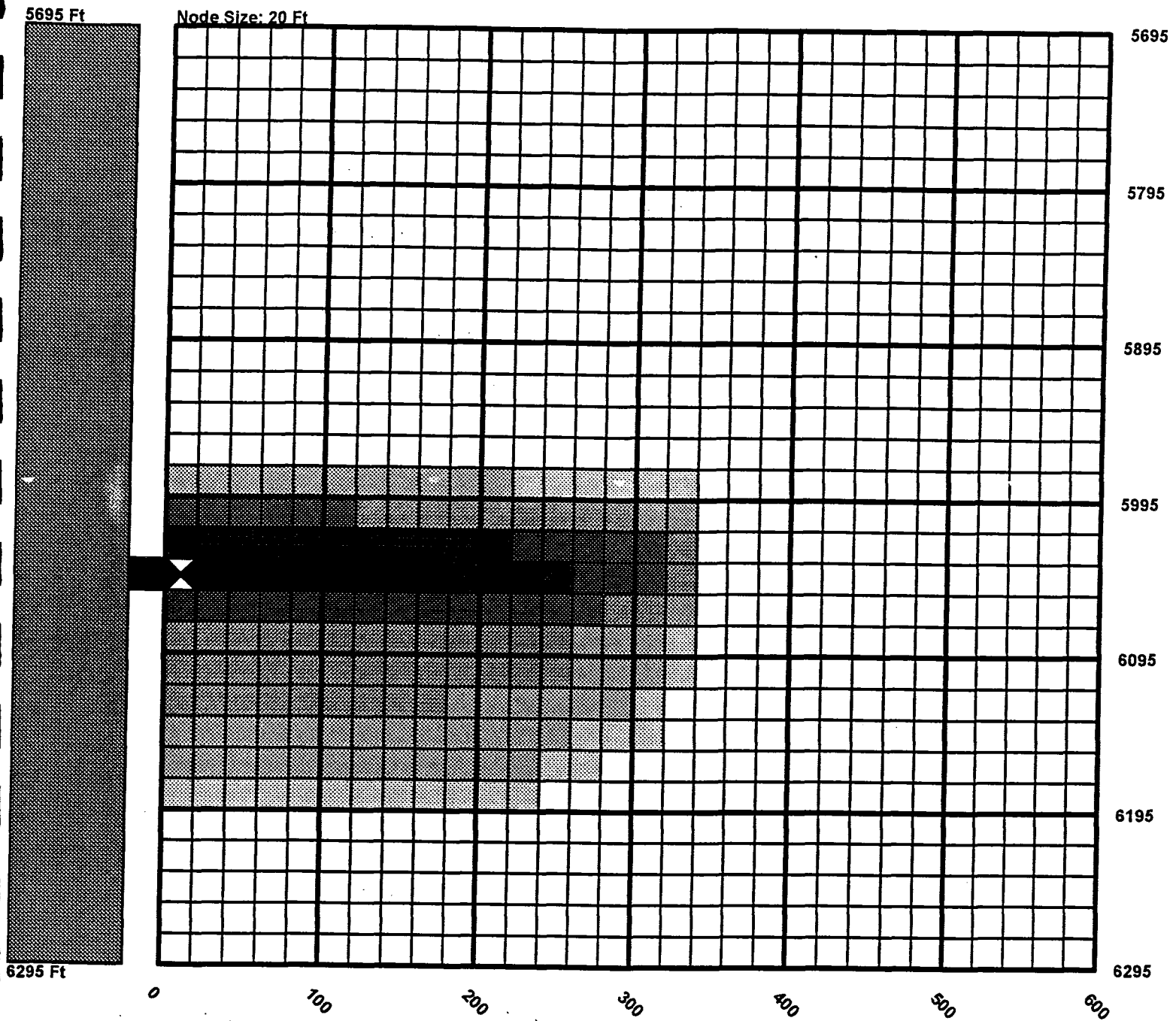


Figure 6: Computed Stress from Mechanical Properties Log

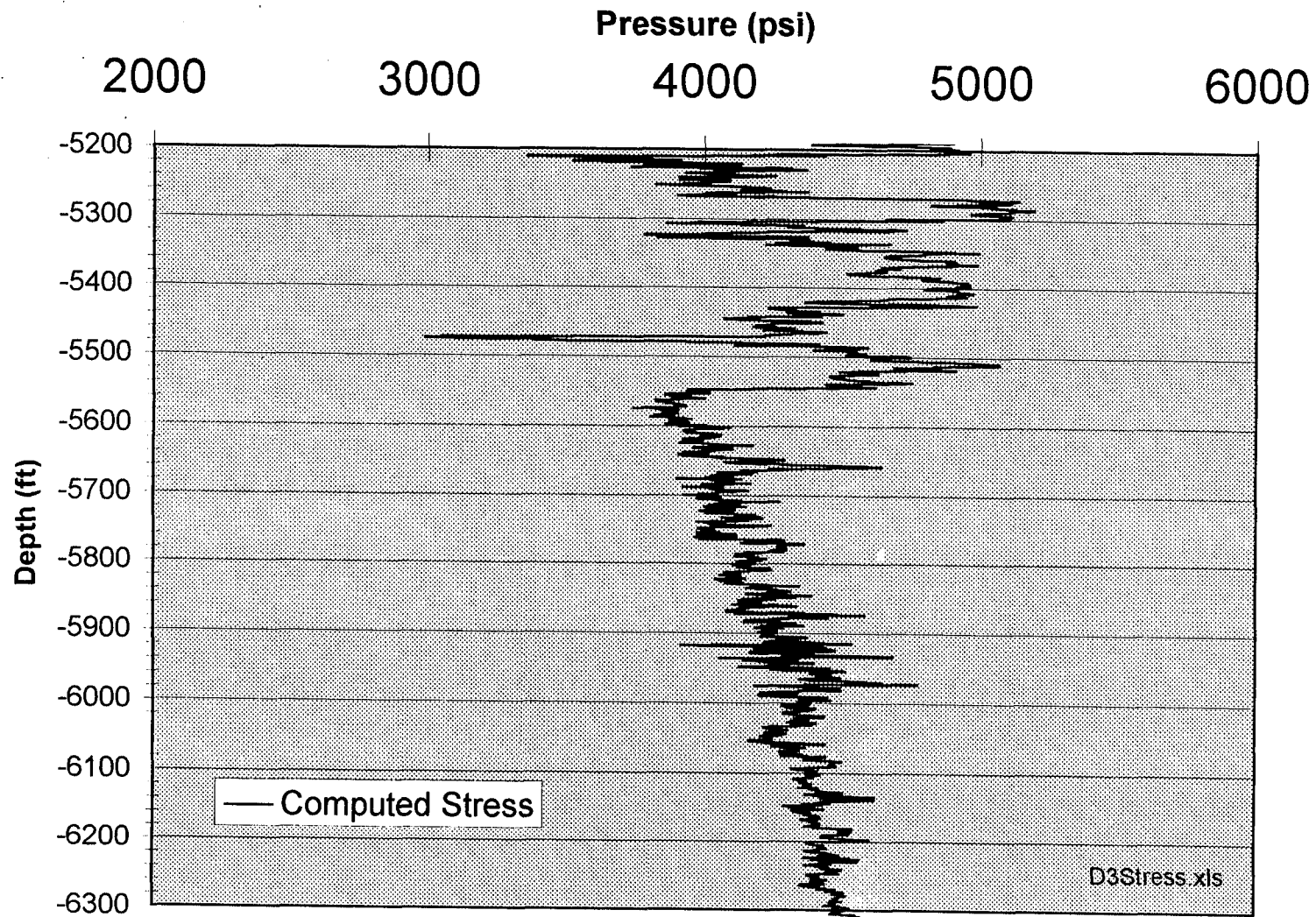


Figure 7
Input Properties
Permeability
(md)

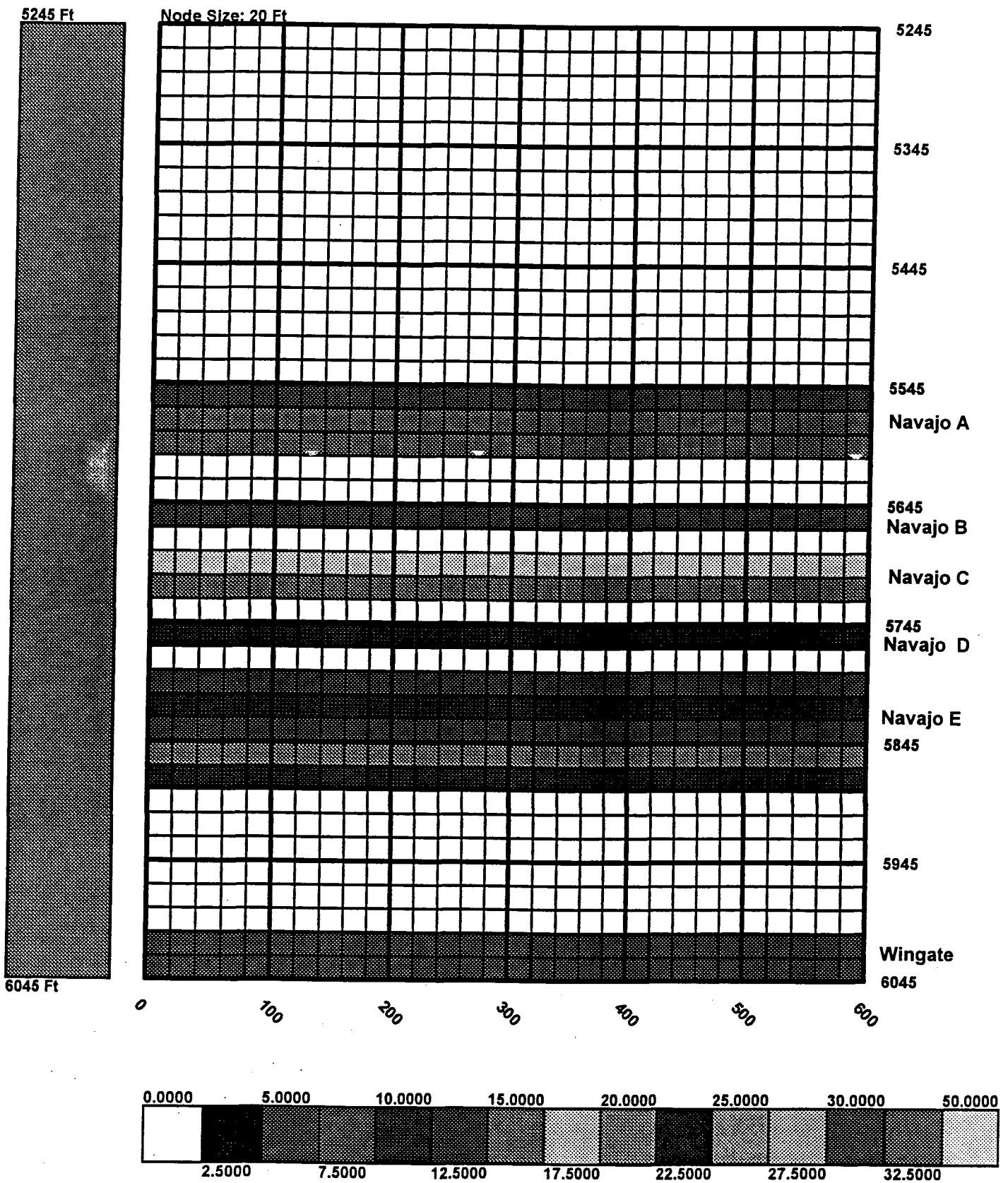
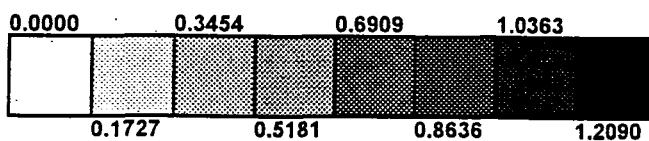
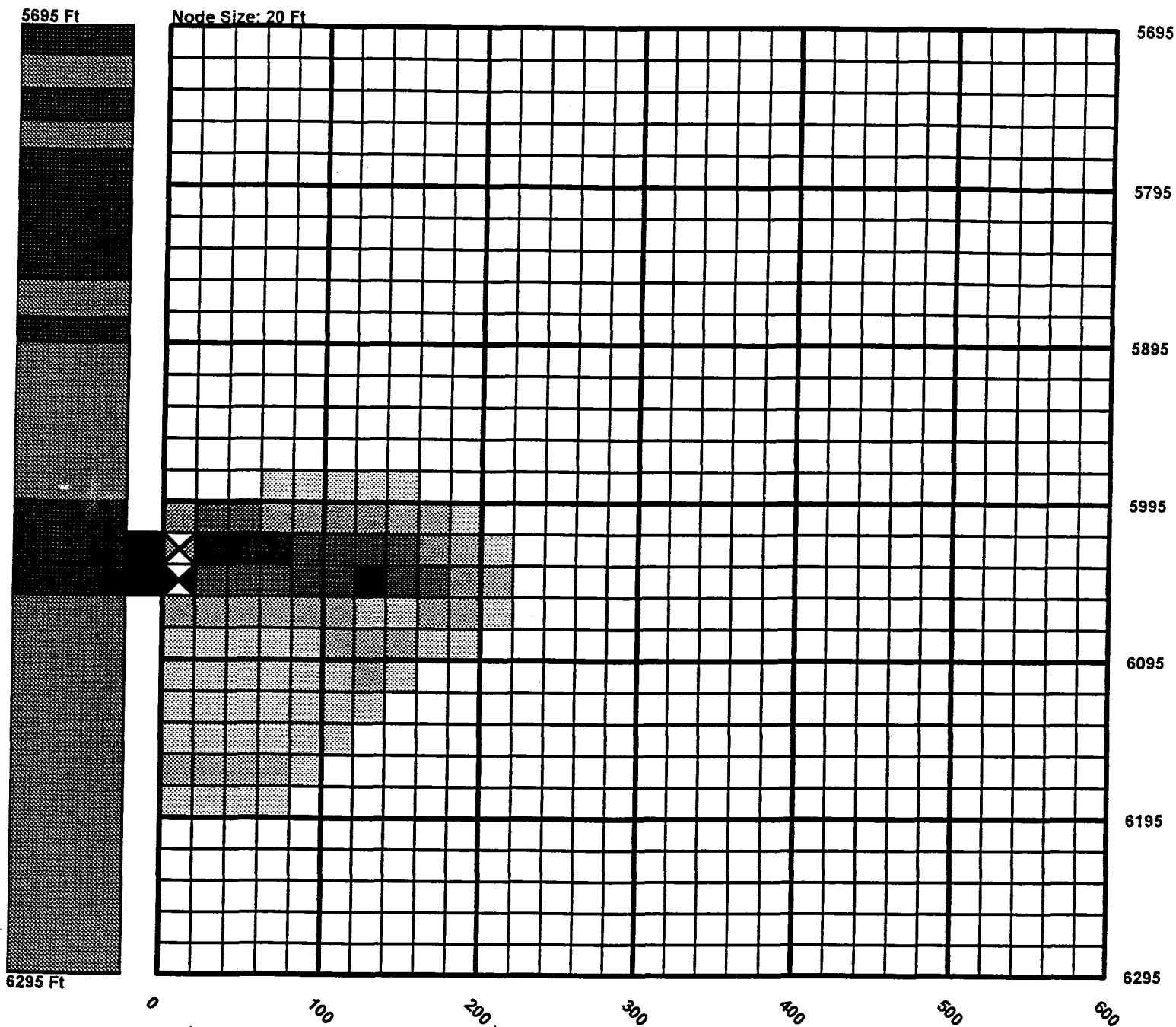


Figure 8
End of Simulation
Proppant Concentration
(pounds per square foot)



Approach to the Navajo: 5540-5910 ft: Various perforated intervals, fluid viscosities, and pump rates were examined to attempt to place deep penetrating fractures. No stress barriers were identified short of the cap at the top. Therefore the approach was to place the best possible stimulation treatment through a set of perforations from 5550-5600 ft. Small treatments are being considered for the other intervals to ensure communication of the perforations with the primary fracture placed through the uppermost perforations.

2. Navajo A: 5500-5600 ft: The principal factor limiting deep penetration into the permeable zones is leak-off. Large pads do not provide significantly improved penetration. The major factor seems to be placing large volumes at low sand concentrations to maximize penetration into the permeable zone. Therefore one may be advised to consider using 3% diesel in the first 50% of the treatment to improve the penetration depth. Further simulations will be conducted to refine the recommendation. The current design recommended is summarized in Table 2. The detailed design is given in Appendix C. The proppant placement in pounds/gallon which emphasizes the influence of leakoff on the sand concentration is shown at approximately 30 minutes after shut-in in figure 9. Figure 10 gives the proppant concentration (lb/ft^2) at the end of the simulation.

Table 2

Fluid: 53000 gal of 35 lb/1000 gal Borate Gel

Proppant: 185,000 lb 20/40 sand

Treatment: Pump down Casing at 60 BPM.

Stage	Volume gallons	Sand Concentration lb/gallon
1	8000	0
2	5000	1
3	6000	2
4	8000	3
5	10000	4
6	4000	6

Figure 9

End of Simulation
Proppant Volume Fraction for Proppant #1
(pounds per gallon)

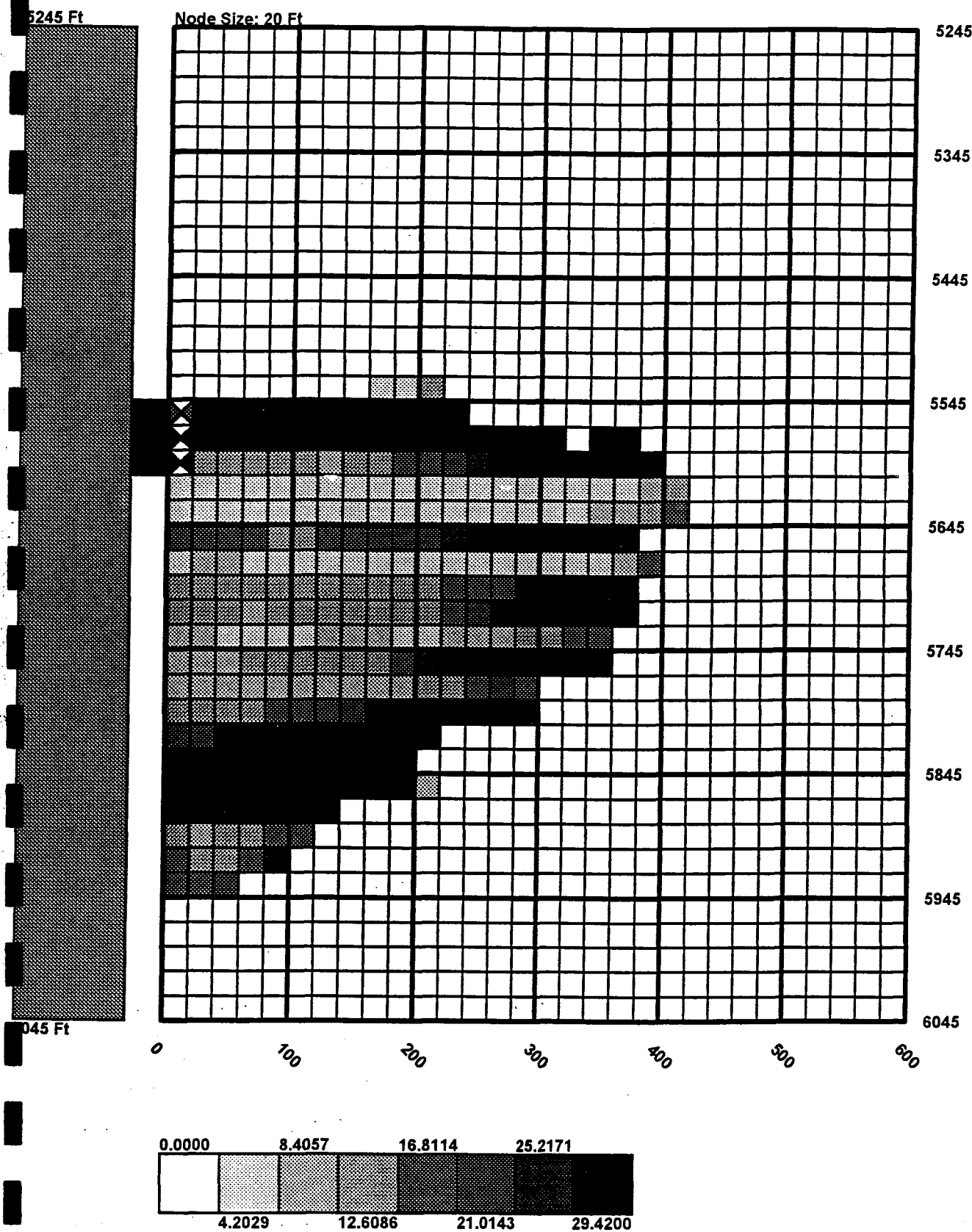
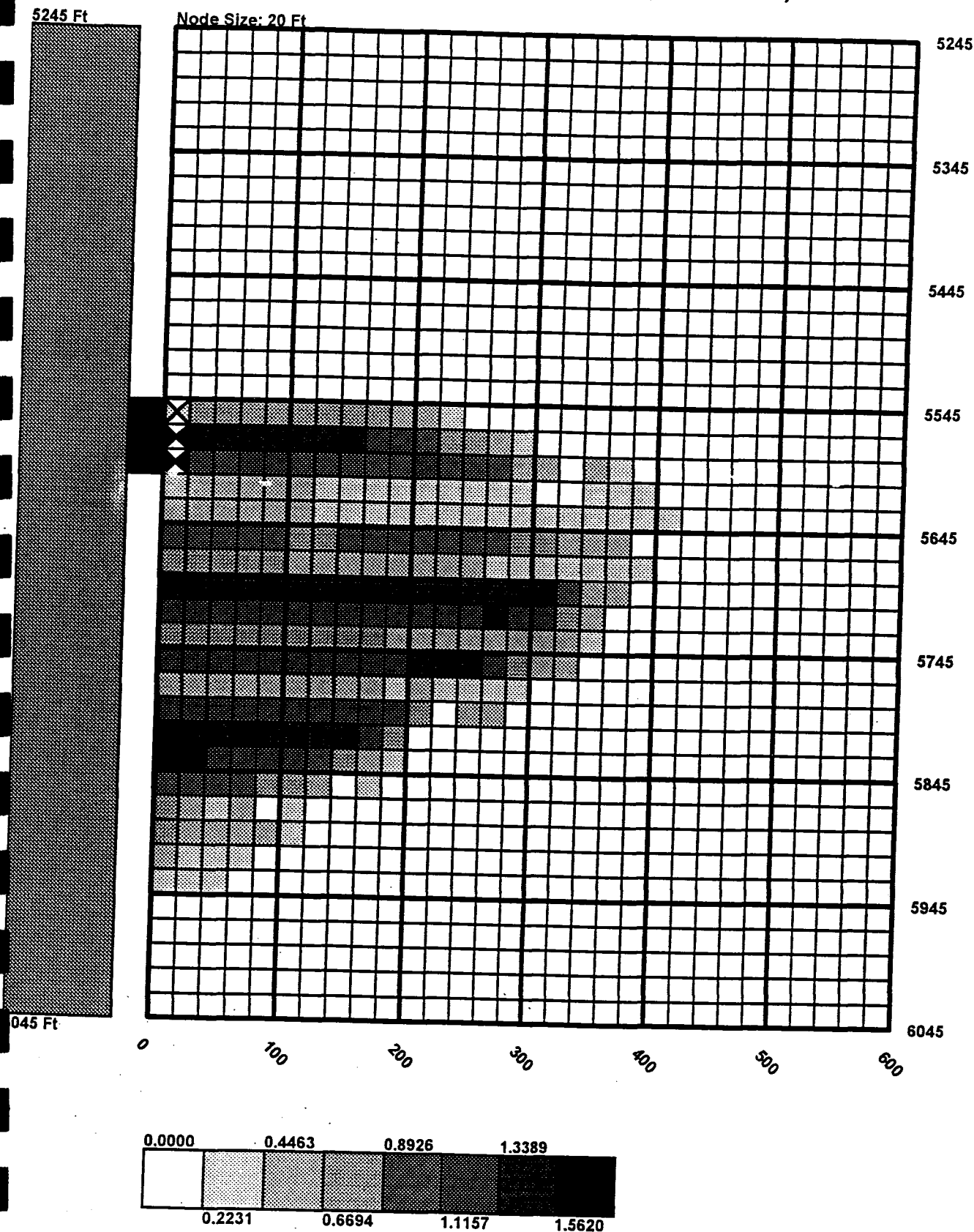


Figure 10
Individual Time Step Report
Proppant Concentration
(pounds per square foot)



3. Navajo E: 5790-5870 ft: The simulation shows that this zone will not be adequately stimulated from the treatment through the Navajo A perforations.

Table 3

Fluid: 21,000 gal of 35 lb/1000 gal Borate Gel -Low Fluid Loss

Proppant: 58,000 lb 20/40 sand

Treatment: Pump down Tubing at 10 BPM.

Stage	Volume gallons	Sand Concentration lb/gallon
1	4000	0
2	3000	1
3	3000	2
4	3000	3
5	6000	4
6	2000	6

The primary factor significantly limiting extension in the primary zone is fluid loss. Therefore 3% hydrocarbon should be evaluated for additional fluid loss control. The proppant distribution at the end of the simulation is given in figure 11. The complete simulation is given in Appendix D.

4. Navajo B-D: 5650-5770 ft: If the fracturing pressure during the Navajo E treatment decreases dramatically as predicted in figure 12, then these zones will be stimulated by both stimulation treatments (Navajo A and Navajo E) and will only need to be broken down after perforating. A careful analysis of the pressures will be required in the event that the treatment in Navajo E screens out due to excessive leak-off which is highly possible. That is why the treatments are recommended down open ended tubing so that pressure can be carefully monitored on the annulus. If the pressure in the Navajo treatment does not decline significantly, then some of the non-permeable stringers are behaving as barriers to fracture height growth and the B, C and D zones will need to be stimulated separately as a group, probably perforated in the Navajo C with a similiar treatment as used in the Navajo E.

Stimulation Procedure:

1. Perforate and fracture stimulate the Wingate down open ended tubing.
2. Plug back with sand in the casing and fracture stimulate the Navajo E down open ended tubing.
3. Evaluate treatment pressure and either perforate and break-down Navajo D, C and B or fracture stimulate through perforations in the Navajo C.
4. Plug back with sand in the casing and fracture stimulate the Navajo A down casing.

Figure 11

End of Simulation
Proppant Concentration
(pounds per square foot)

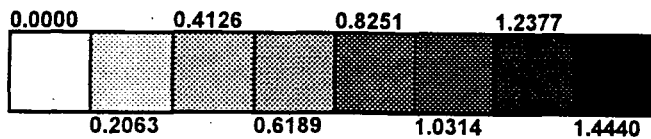
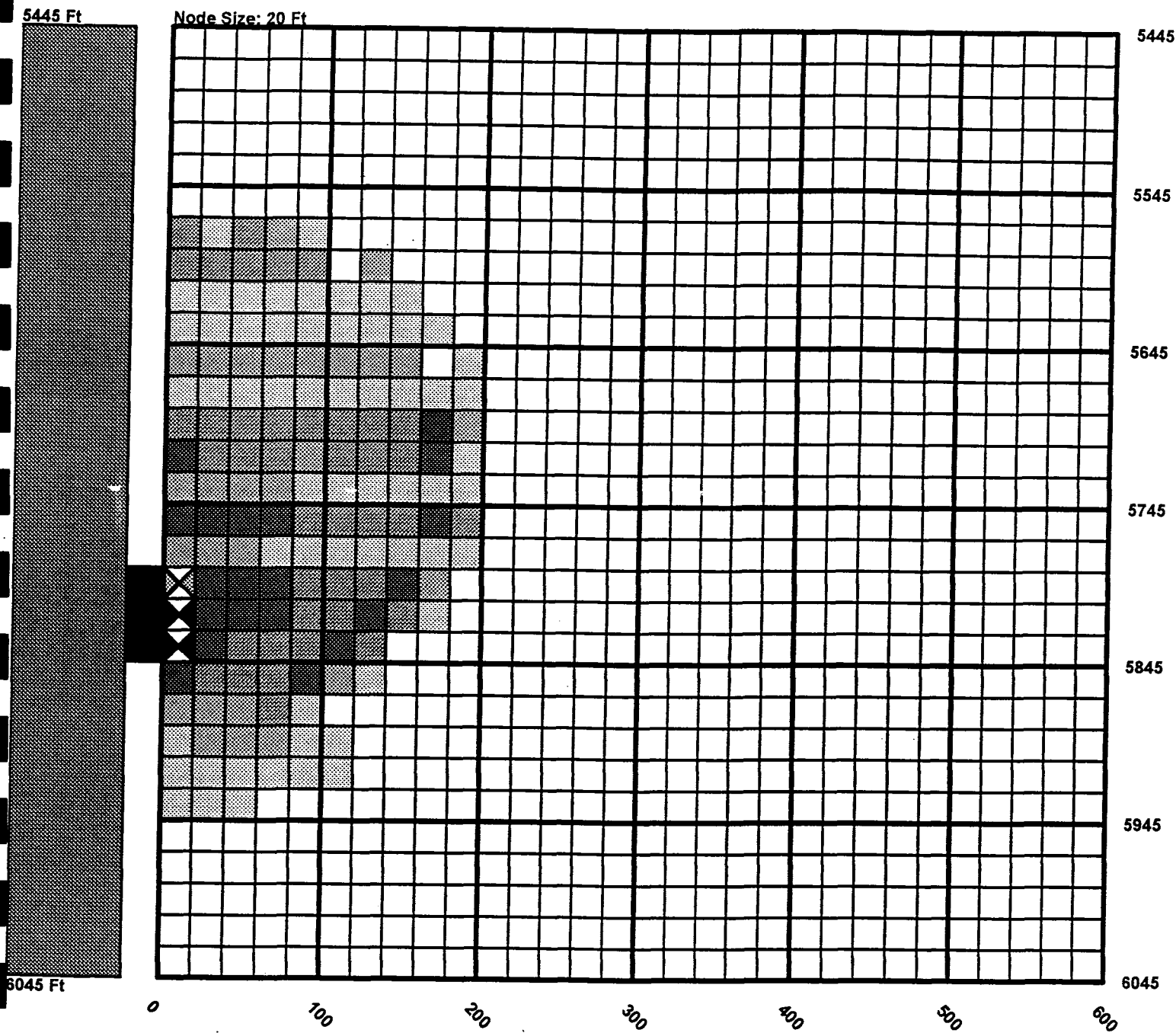
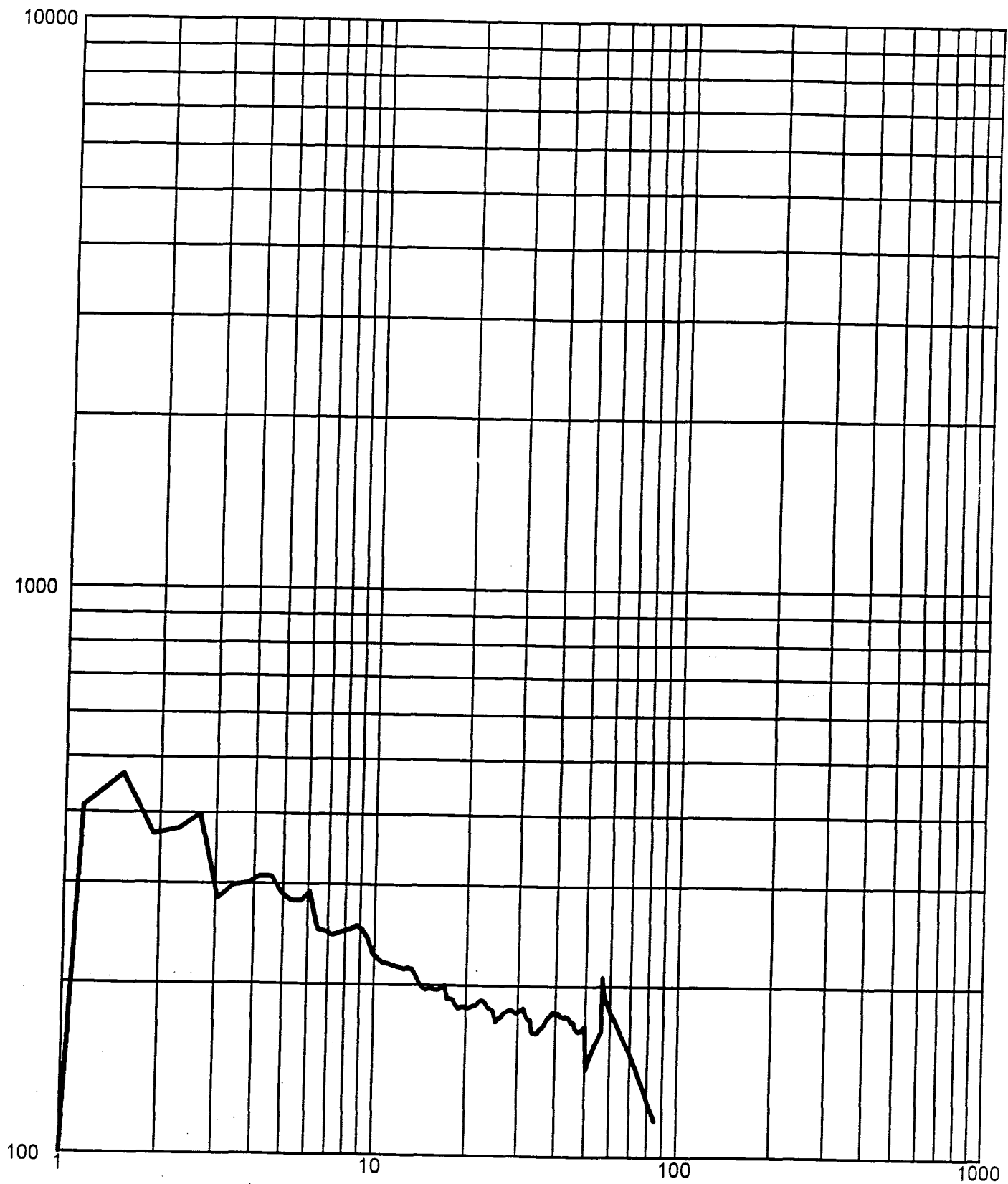


Figure 12

**Net Pressure (BHP - Closure)
Pressure (PSI) vs Time (Minutes)**

4017 PSI Closure Pressure



GOHFER



GRID ORIENTED HYDRAULIC FRACTURE EXTENSION REPLICATOR

LICENSED TO: STIM-LAB, Incorporated

A FRACTURING TREATMENT DESIGN PREPARED FOR: APPENDIX A: WINGATE STEPRATE TEST

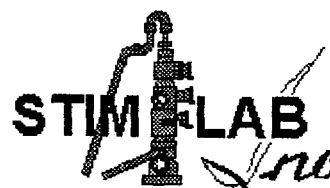
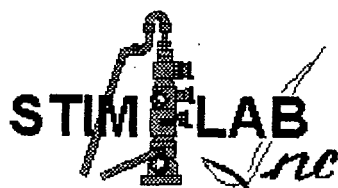
Company:	River Gas Corporation
Well:	D-3
Field:	Drunkards Wash
Formation:	Navajo
Section:	18
Township:	15 s
Range:	10 e
County:	Carbon
State:	Utah

File References:

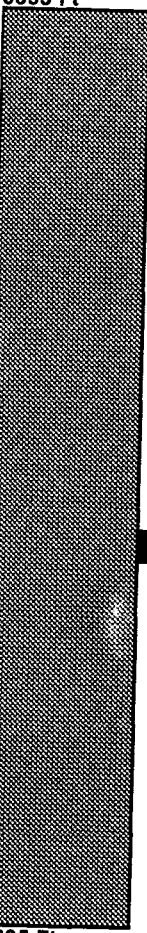
Set: RGU1

Run: 13

This information is presented in good faith, but no warranty is given by the licensee, and the licensee assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or services. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on the input data provided by the Operator. Estimates as to unknown data can be no more accurate than the model, the assumptions, and such input data. The information presented is the licensee's best estimate of the actual result that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which the licensee can assist in selecting. The Operator has superior knowledge of the well, the reservoir, the field and the conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein, it is the Operator's responsibility to notify the owner or owners of the well accordingly. Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Freedom from infringement of patents of the licensee or others is not to be inferred.



Input Array of Formation Properties



Layer	Poisson's Ratio	Young's Modulus (psi)	Net Closure Stress (psi)	Tensile Strength (psi)	Permeability (md)	Porosity (Fraction)	Reservoir Pore Pressure (psi)	Cw Sqrt(min)
1	0.26	4.70E+06	1588.85	400.00	5.000	0.15	2226.90	0.0080
2	0.26	4.90E+06	1619.13	400.00	0.000	0.00	2234.70	0.0000
3	0.25	5.00E+06	1610.96	400.00	5.000	0.15	2242.50	0.0080
4	0.25	5.40E+06	1617.00	400.00	0.000	0.00	2250.30	0.0000
5	0.23	6.20E+06	1651.89	400.00	5.000	0.15	2258.10	0.0080
6	0.28	4.20E+06	1624.80	400.00	5.000	0.15	2265.90	0.0080
7	0.27	4.00E+06	1576.44	400.00	5.000	0.15	2273.70	0.0080
8	0.28	4.40E+06	1715.39	400.00	5.000	0.15	2281.50	0.0080
9	0.28	4.00E+06	1640.27	600.00	0.000	0.00	2289.30	0.0000
10	0.24	5.70E+06	1654.55	400.00	5.000	0.15	2297.10	0.0080
11	0.27	5.00E+06	1697.42	400.00	0.000	0.00	2304.90	0.0000
12	0.24	6.90E+06	1793.16	400.00	0.000	0.00	2312.70	0.0000
13	0.22	7.30E+06	1775.27	400.00	0.000	0.00	2320.50	0.0000
14	0.23	8.20E+06	1920.04	650.00	0.000	0.00	2328.30	0.0000
15	0.22	7.90E+06	1860.15	400.00	0.000	0.00	2336.10	0.0000
16	0.25	5.80E+06	1769.24	400.00	5.000	0.15	2343.90	0.0080
17	0.29	4.00E+06	1736.49	400.00	5.000	0.15	2351.70	0.0080
18	0.28	4.00E+06	1654.33	400.00	5.000	0.15	2359.50	0.0080
19	0.24	5.70E+06	1689.22	400.00	0.000	0.00	2367.30	0.0000
20	0.22	7.60E+06	1838.36	400.00	0.000	0.00	2375.10	0.0000
21	0.23	6.80E+06	1788.20	400.00	0.000	0.00	2382.90	0.0000
22	0.23	7.20E+06	1818.38	400.00	0.000	0.00	2390.70	0.0000
23	0.23	7.20E+06	1821.92	400.00	0.000	0.00	2398.50	0.0000
24	0.22	7.10E+06	1762.10	400.00	0.000	0.00	2406.30	0.0000
25	0.22	7.80E+06	1881.56	400.00	0.000	0.00	2414.10	0.0000
26	0.21	7.80E+06	1834.89	400.00	0.000	0.00	2421.90	0.0000
27	0.22	7.30E+06	1798.13	400.00	0.000	0.00	2429.70	0.0000
28	0.22	7.30E+06	1826.88	400.00	0.000	0.00	2437.50	0.0000
29	0.22	6.80E+06	1765.33	400.00	0.000	0.00	2445.30	0.0000
30	0.22	7.40E+06	1846.77	400.00	0.000	0.00	2453.10	0.0000

Node Size (ft) : 20

Treatment Design

STAGE NUMBER	SUBSTEP	PROPPANT NAME	PROPPANT CONC (lb/gal)	FLUID VOLUME (gallons)	FLUID NAME	SLURRY RATE (BPM)
1	25	20/40 Ottawa	0	4120	Water 120 000 none 00.00	3
2	10	20/40 Ottawa	0	1680	Water 120 000 none 00.00	4
3	10	20/40 Ottawa	0	2100	Water 120 000 none 00.00	5
4	5	20/40 Ottawa	0	2520	Water 120 000 none 00.00	6
5	5	20/40 Ottawa	0	3440	Water 120 000 none 00.00	8.2
6	5	20/40 Ottawa	0	5145	Water 120 000 none 00.00	12.3
7	10	20/40 Ottawa	0	6879	Water 120 000 none 00.00	16.4
8	10	20/40 Ottawa	0	8543	Water 120 000 none 00.00	20.3
9	15	20/40 Ottawa	0	10435	Water 120 000 none 00.00	24.2
10	100	20/40 Ottawa	0	60	Water 120 000 none 00.00	.1

Fluid Properties

Fluid Name	Zero Shear Viscosity (cp)	n'	Onset of Low Shear Plateau (1/sec)	Onset of High Shear Plateau (1/sec)
Water 120 000 none 00.00	.8	1	10	100000000

Viscosity at Reservoir Temperature = 60 °F

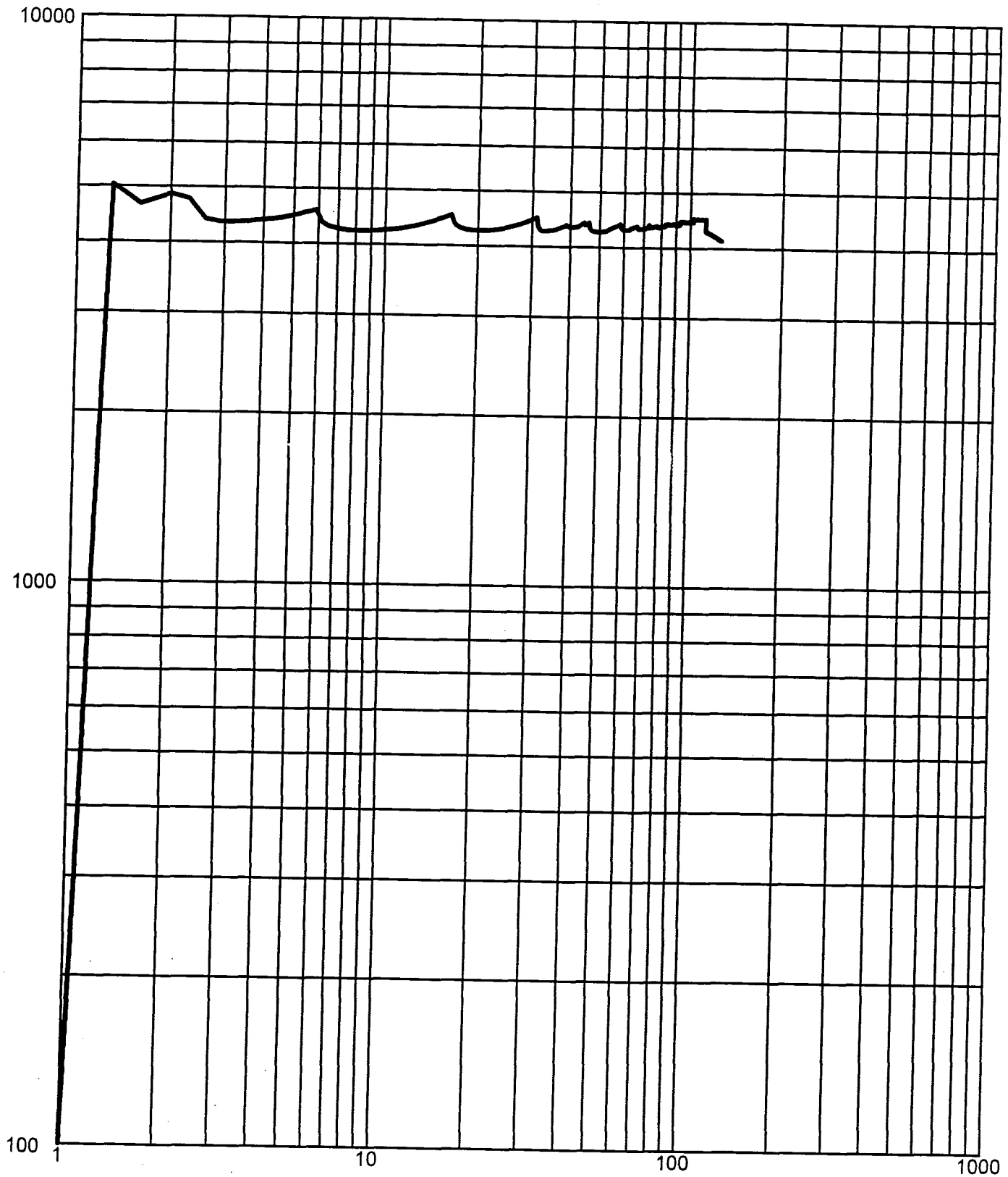
Shear Rate (1/sec)	0.01	40	170	511
Apparent Viscosity (cp)	1	1	1	1

Proppant Properties

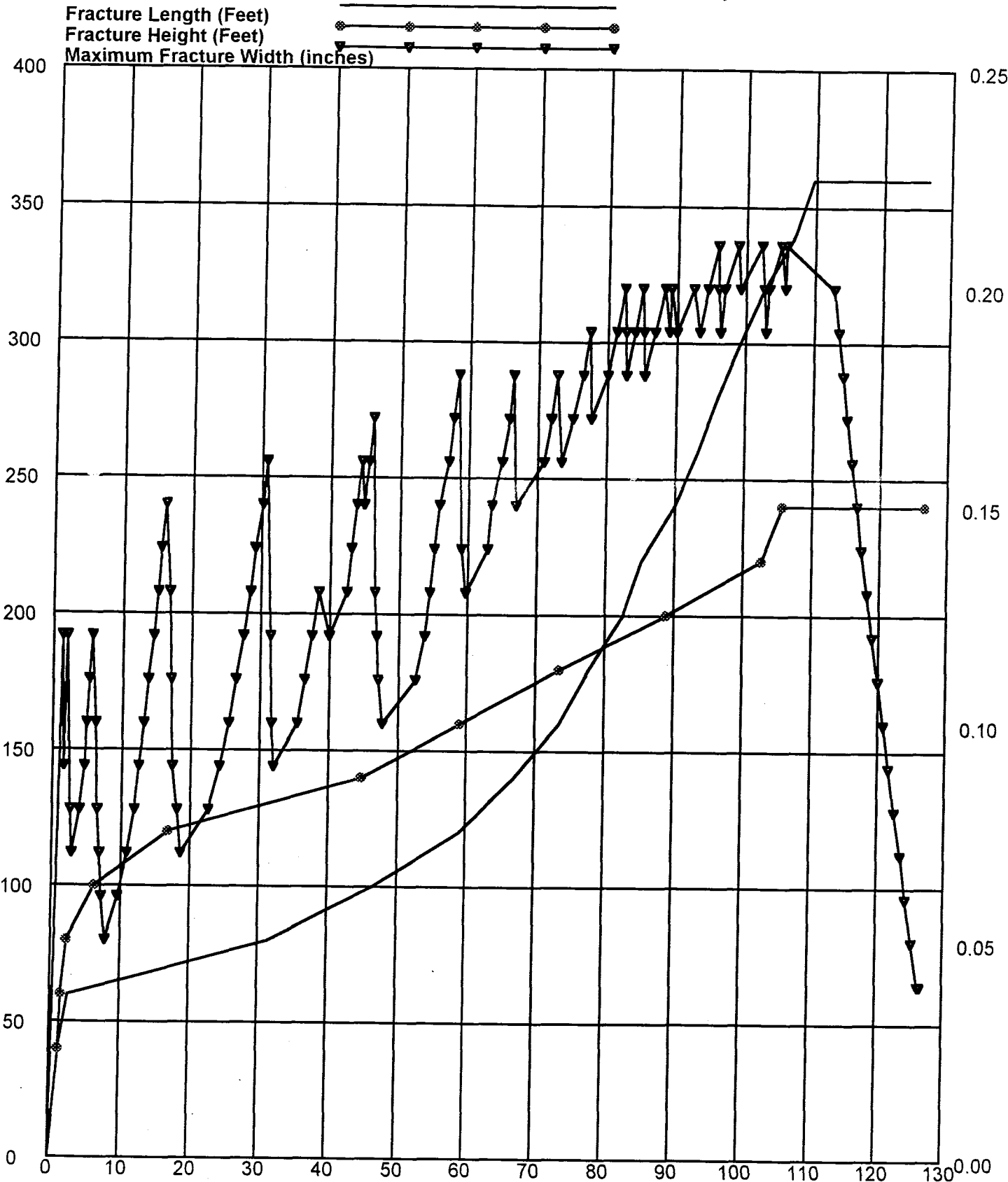
Proppant Name	Density (g/cc)	Size (in)
20/40 Ottawa	2.65	.03

**Net Pressure (BHP - Closure)
Pressure (PSI) vs Time (Minutes)**

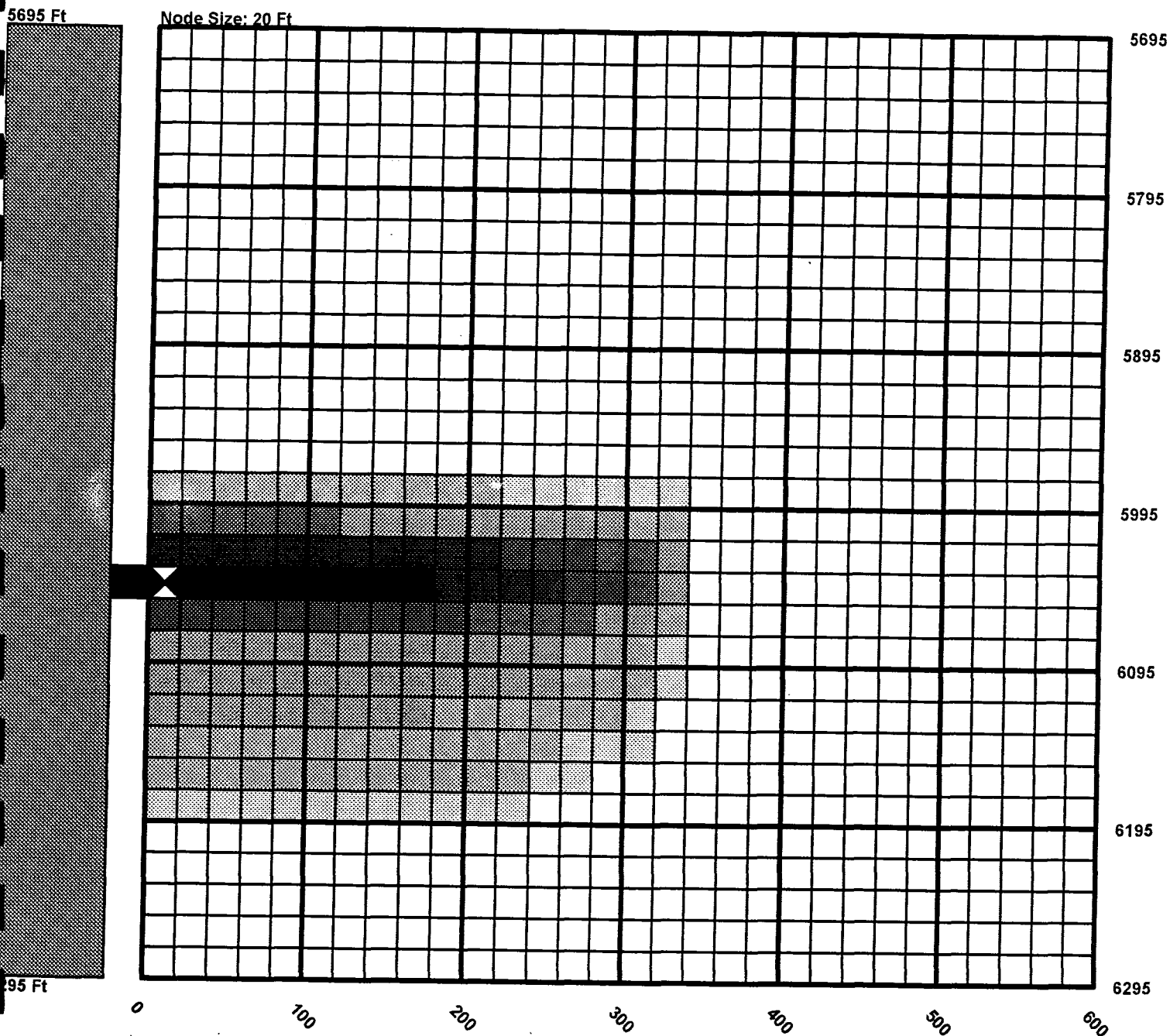
9 PSI Closure Pressure



Fracture Growth Fracture Size vs Time (Minutes)



End of Pumping Fracture Width (inches)



GOHFER



GRID ORIENTED HYDRAULIC FRACTURE EXTENSION REPLICATOR

LICENSED TO: STIM-LAB, Incorporated

A FRACTURING TREATMENT DESIGN PREPARED FOR: APPENDIX B: WINGATE STIMULATION RECOMMENDATION

Company:	River Gas Corporation
Well:	D-3
Field:	Drunkards Wash
Formation:	Navajo
Section:	18
Township:	15 S
Range:	10 E
County:	Carbon
State:	Utah

File References:

Set: RGU2

Run: 05

This information is presented in good faith, but no warranty is given by the licensee, and the licensee assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or services. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on the input data provided by the Operator. Estimates as to unknown data can be no more accurate than the model, the assumptions, and such input data. The information presented is the licensee's best estimate of the actual result that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which the licensee can assist in selecting. The Operator has superior knowledge of the well, the reservoir, the field and the conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein, it is the Operator's responsibility to notify the owner or owners of the well accordingly. Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Freedom from infringement of patents of the licensee or others is not to be inferred.



Input Array of Formation Properties

Layer	Poisson's Ratio	Young's Modulus (psi)	Net Closure Stress (psi)	Tensile Strength (psi)	Permeability (md)	Porosity (Fraction)	Reservoir Pore Pressure (psi)	Cw Sqrt(min)
1	0.26	4.70E+06	1588.85	350.00	5.000	0.15	2226.90	0.0031
2	0.26	4.90E+06	1619.13	350.00	0.000	0.00	2234.70	0.0000
3	0.25	5.00E+06	1610.96	350.00	5.000	0.15	2242.50	0.0031
4	0.25	5.40E+06	1617.00	350.00	0.000	0.00	2250.30	0.0000
5	0.23	6.20E+06	1651.89	350.00	5.000	0.15	2258.10	0.0031
6	0.28	4.20E+06	1624.80	350.00	5.000	0.15	2265.90	0.0031
7	0.27	4.00E+06	1576.44	350.00	5.000	0.15	2273.70	0.0031
8	0.28	4.40E+06	1715.39	350.00	5.000	0.15	2281.50	0.0031
9	0.28	4.00E+06	1640.27	450.00	0.000	0.00	2289.30	0.0000
10	0.24	5.70E+06	1654.55	350.00	5.000	0.15	2297.10	0.0031
11	0.27	5.00E+06	1697.42	350.00	0.000	0.00	2304.90	0.0000
12	0.24	6.90E+06	1793.16	350.00	0.000	0.00	2312.70	0.0000
13	0.22	7.30E+06	1775.27	350.00	0.000	0.00	2320.50	0.0000
14	0.23	8.20E+06	1920.04	550.00	0.000	0.00	2328.30	0.0000
15	0.22	7.90E+06	1860.15	350.00	0.000	0.00	2336.10	0.0000
16	0.25	5.80E+06	1769.24	350.00	5.000	0.15	2343.90	0.0031
17	0.29	4.00E+06	1736.49	350.00	5.000	0.15	2351.70	0.0031
18	0.28	4.00E+06	1654.33	350.00	5.000	0.15	2359.50	0.0031
19	0.24	5.70E+06	1689.22	350.00	0.000	0.00	2367.30	0.0000
20	0.22	7.60E+06	1838.36	350.00	0.000	0.00	2375.10	0.0000
21	0.23	6.80E+06	1788.20	350.00	0.000	0.00	2382.90	0.0000
22	0.23	7.20E+06	1818.38	350.00	0.000	0.00	2390.70	0.0000
23	0.23	7.20E+06	1821.92	350.00	0.000	0.00	2398.50	0.0000
24	0.22	7.10E+06	1762.10	350.00	0.000	0.00	2406.30	0.0000
25	0.22	7.80E+06	1881.56	350.00	0.000	0.00	2414.10	0.0000
26	0.21	7.80E+06	1834.89	350.00	0.000	0.00	2421.90	0.0000
27	0.22	7.30E+06	1798.13	350.00	0.000	0.00	2429.70	0.0000
28	0.22	7.30E+06	1826.88	350.00	0.000	0.00	2437.50	0.0000
29	0.22	6.80E+06	1765.33	350.00	0.000	0.00	2445.30	0.0000
30	0.22	7.40E+06	1846.77	350.00	0.000	0.00	2453.10	0.0000

Node Size (ft) : 20

Treatment Design

STAGE NUMBER	SUBSTEP	PROPPANT NAME	PROPPANT CONC (lb/gal)	FLUID VOLUME (gallons)	FLUID NAME	SLURRY RATE (BPM)
1	10	20/40 Ottawa	0	2000	40# Guar 000 000 none 00.00	10
2	10	20/40 Ottawa	2	500	40# Guar 000 000 none 00.00	10
3	10	20/40 Ottawa	3	500	40# Guar 000 000 none 00.00	10
4	10	20/40 Ottawa	4	1000	40# Guar 000 000 none 00.00	10
5	10	20/40 Ottawa	6	6000	40# Guar 000 000 none 00.00	10
6	100	20/40 Ottawa	0	60	40# Guar 000 000 none 00.00	0

Fluid Properties

Fluid Name	Zero Shear Viscosity (cp)	n'	Onset of Low Shear Plateau (1/sec)	Onset of High Shear Plateau (1/sec)
40# Guar 000 000 none 00.00	220	.58	20	1000000

Viscosity at Reservoir Temperature = 60 °F

Shear Rate (1/sec)	0.01	40	170	511
Apparent Viscosity (cp)	214	91	55	36

Proppant Properties

Proppant Name	Density (g/cc)	Size (in)
20/40 Ottawa	2.65	.03

Treatment Design

STAGE NUMBER	SUBSTEP	PROPPANT NAME	PROPPANT CONC (lb/gal)	FLUID VOLUME (gallons)	FLUID NAME	SLURRY RATE (BPM)
1	10	20/40 Ottawa	0	2000	40# Guar 000 000 none 00.00	10
2	10	20/40 Ottawa	2	500	40# Guar 000 000 none 00.00	10
3	10	20/40 Ottawa	3	500	40# Guar 000 000 none 00.00	10
4	10	20/40 Ottawa	4	1000	40# Guar 000 000 none 00.00	10
5	10	20/40 Ottawa	6	6000	40# Guar 000 000 none 00.00	10
6	100	20/40 Ottawa	0	60	40# Guar 000 000 none 00.00	0

Fluid Properties

Fluid Name	Zero Shear Viscosity (cp)	n'	Onset of Low Shear Plateau (1/sec)	Onset of High Shear Plateau (1/sec)
40# Guar 000 000 none 00.00	220	.58	20	1000000

Viscosity at Reservoir Temperature = 60 °F

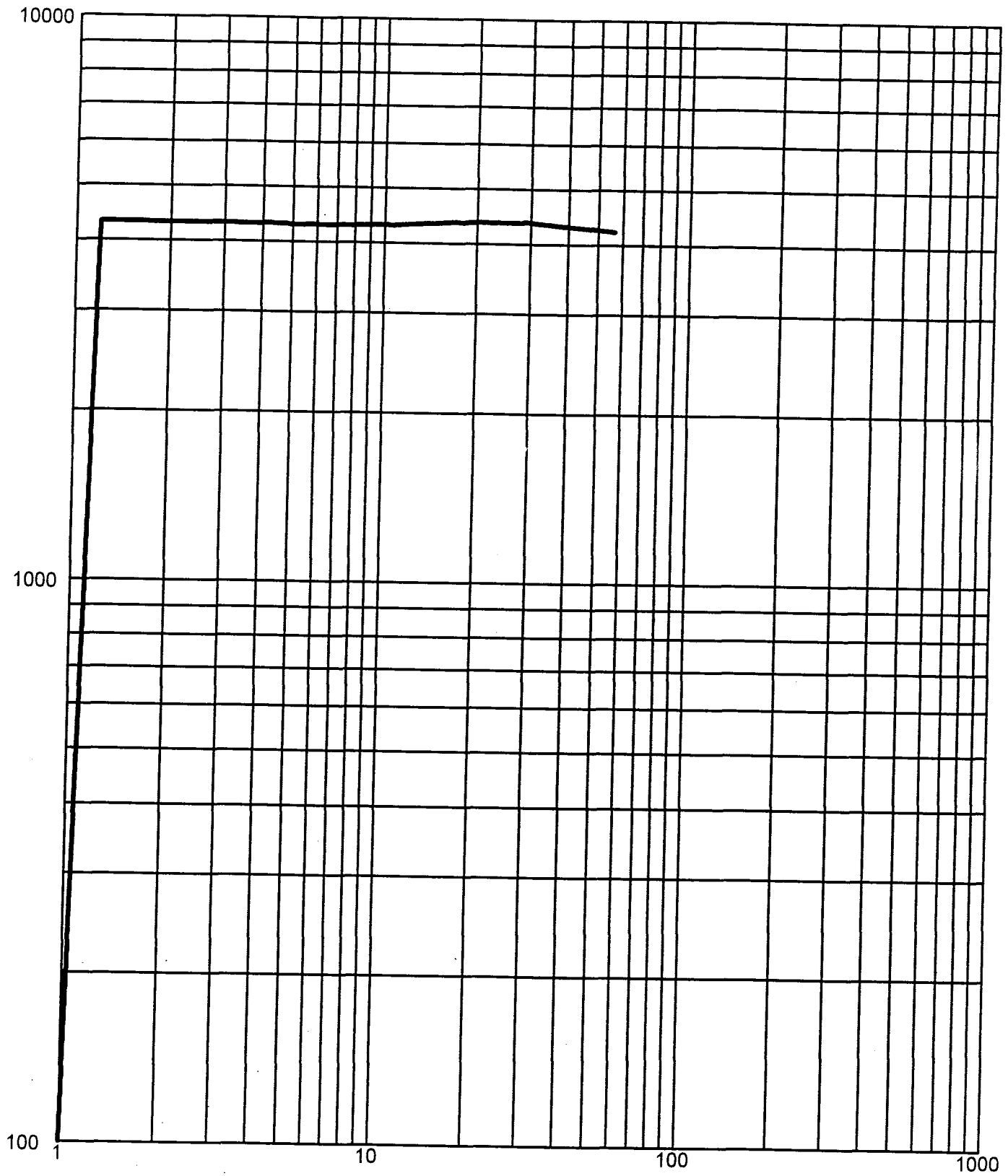
Shear Rate (1/sec)	0.01	40	170	511
Apparent Viscosity (cp)	214	91	55	36

Proppant Properties

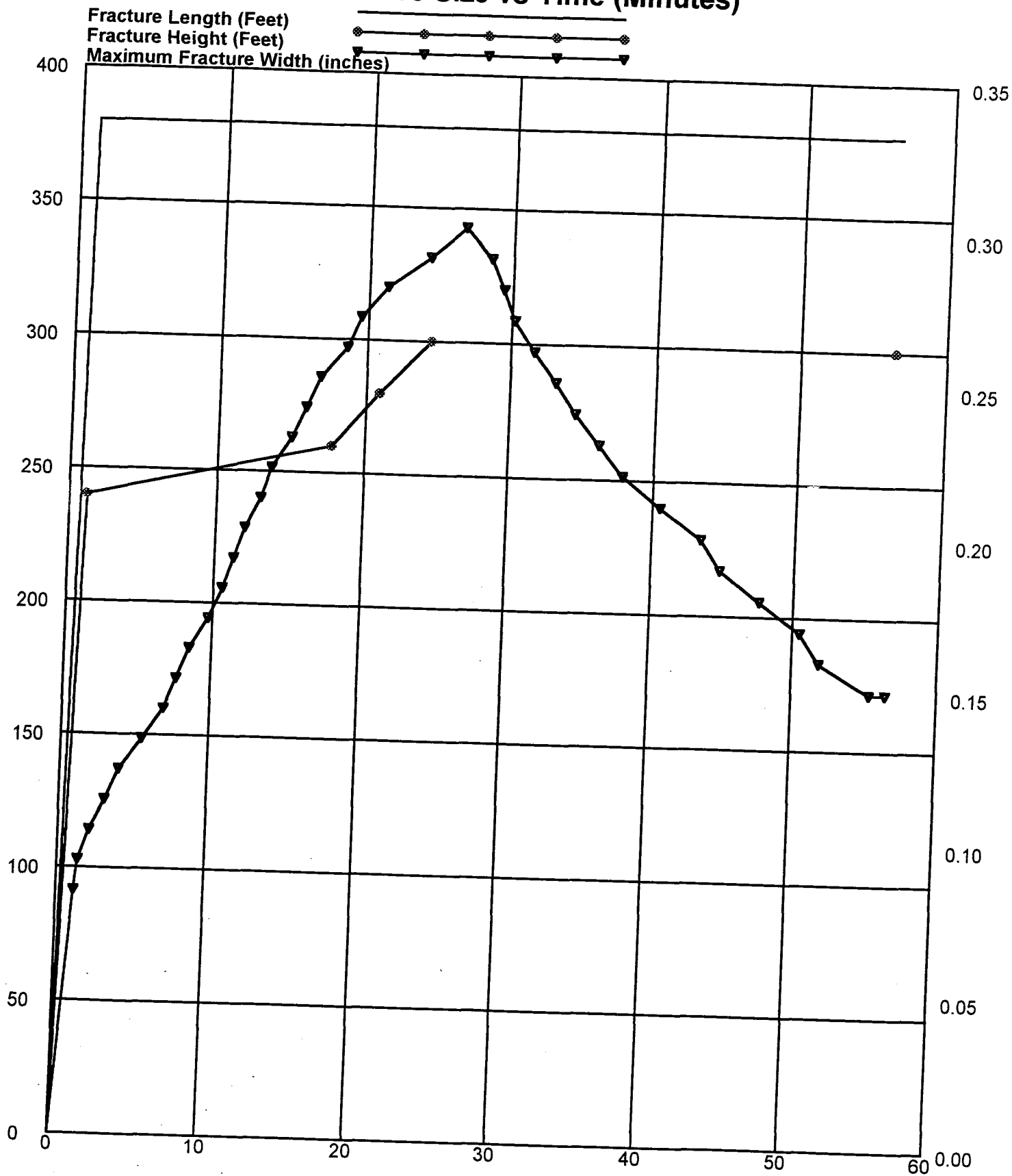
Proppant Name	Density (g/cc)	Size (in)
20/40 Ottawa	2.65	.03

**Net Pressure (BHP - Closure)
Pressure (PSI) vs Time (Minutes)**

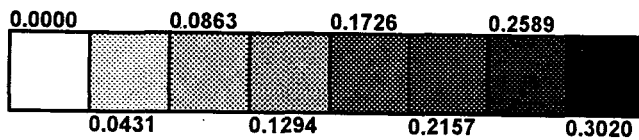
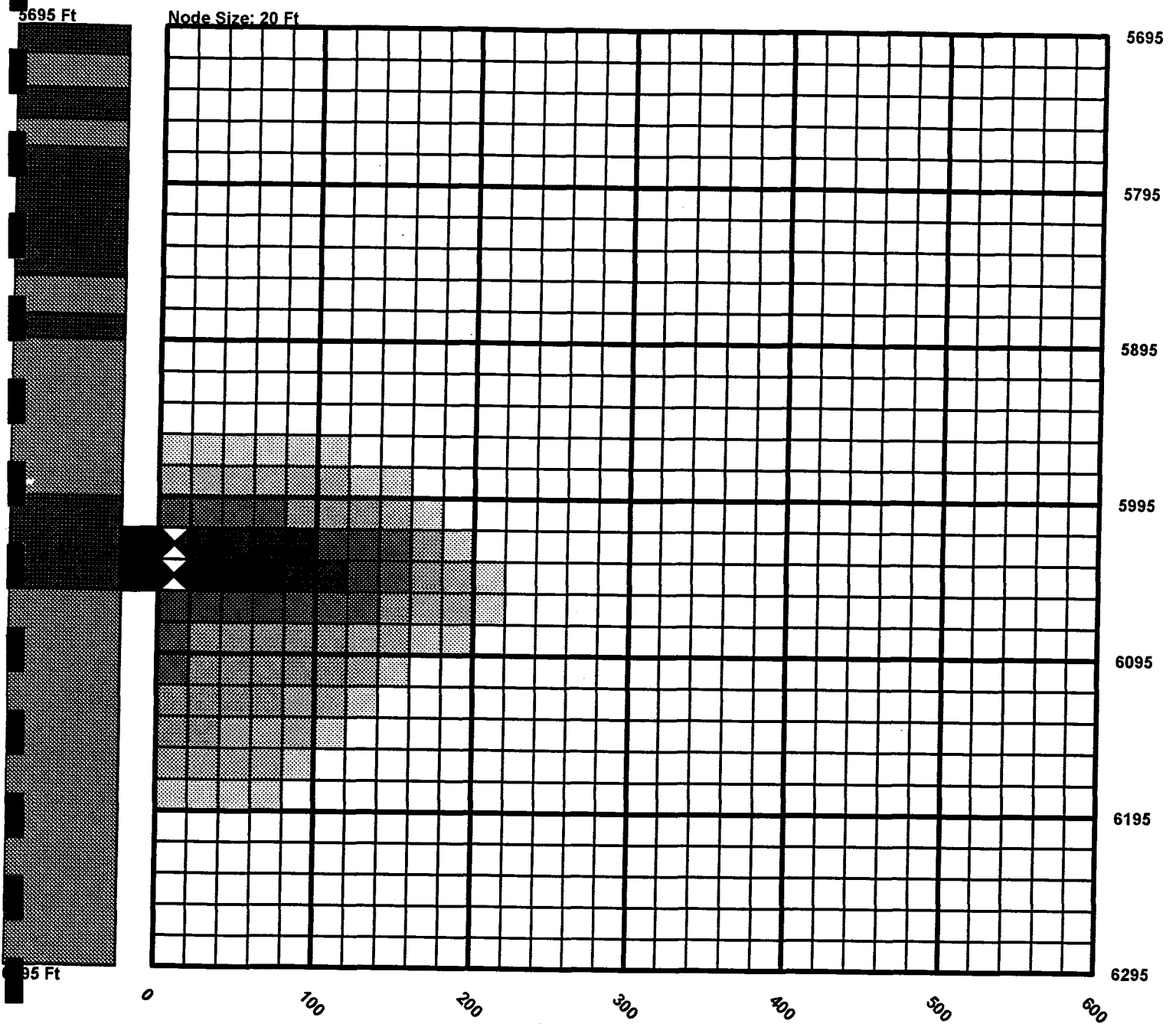
12 PSI Closure Pressure



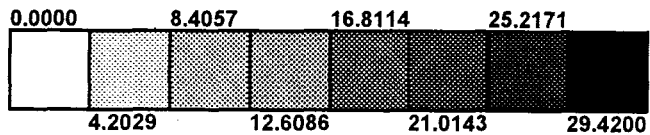
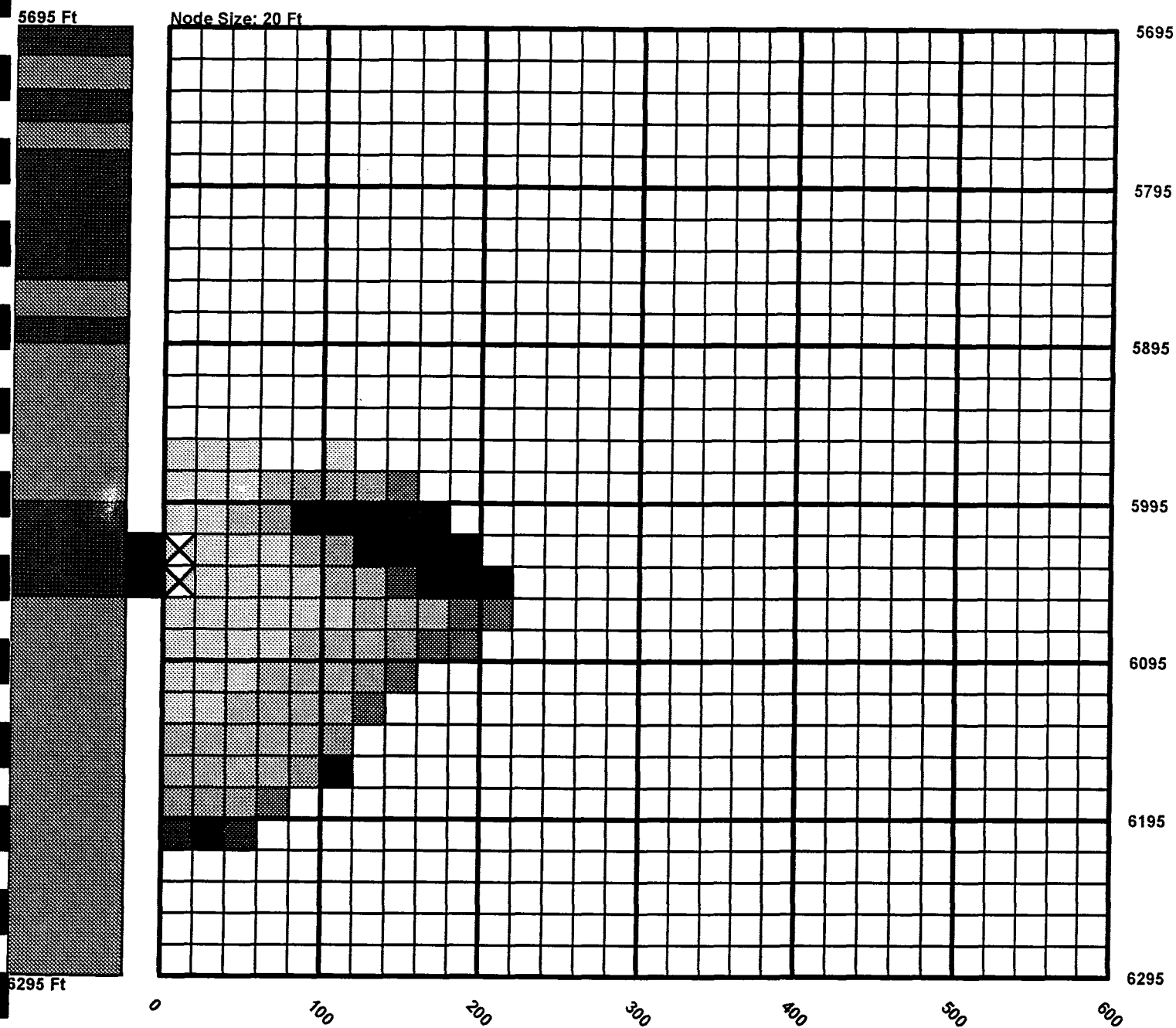
Fracture Growth Fracture Size vs Time (Minutes)



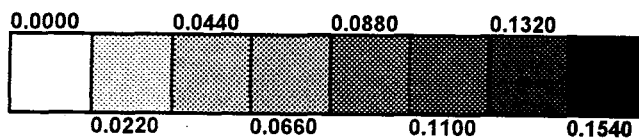
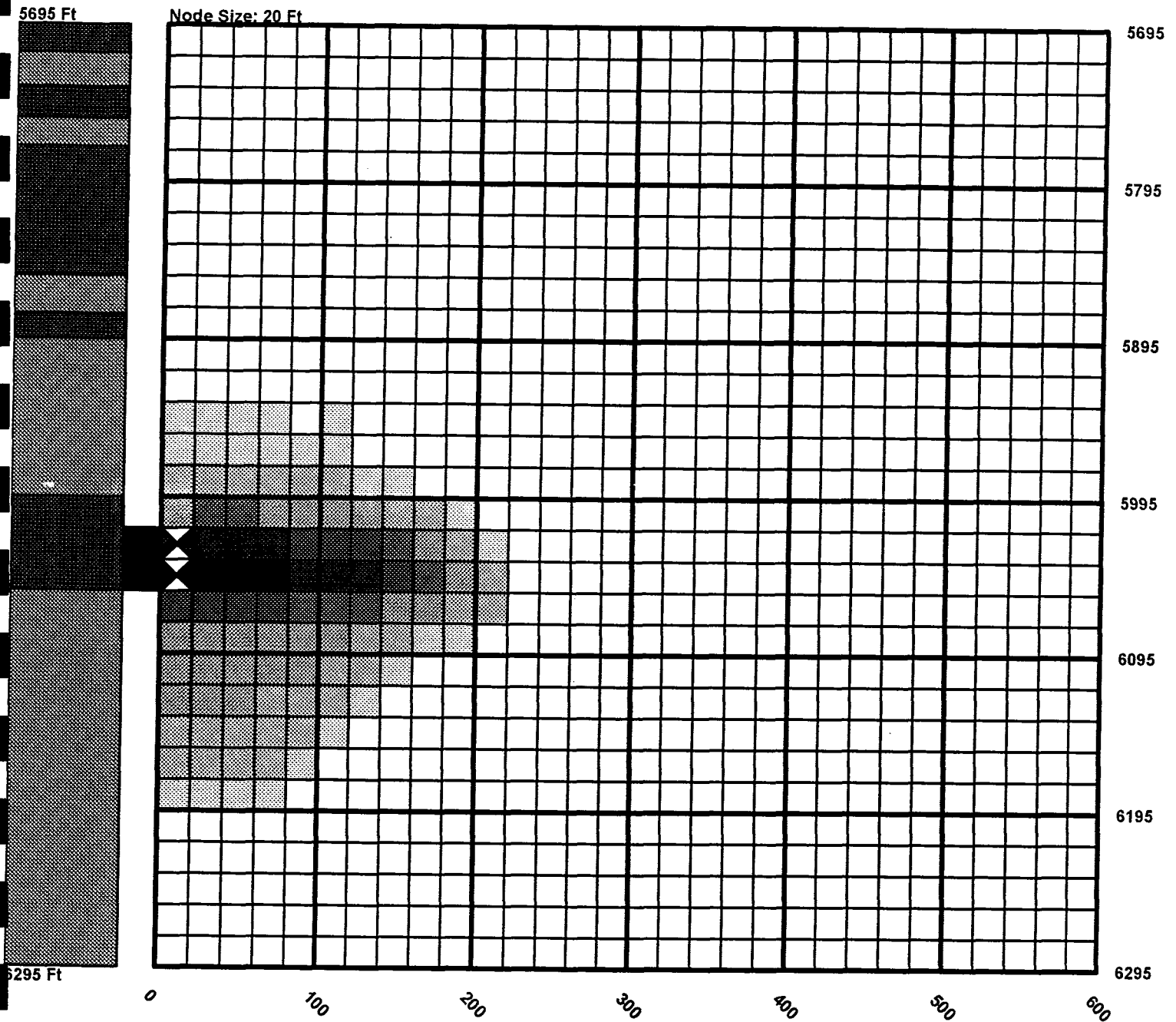
End of Pumping Fracture Width (inches)



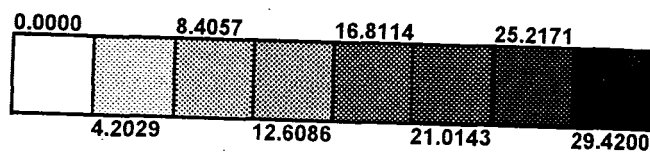
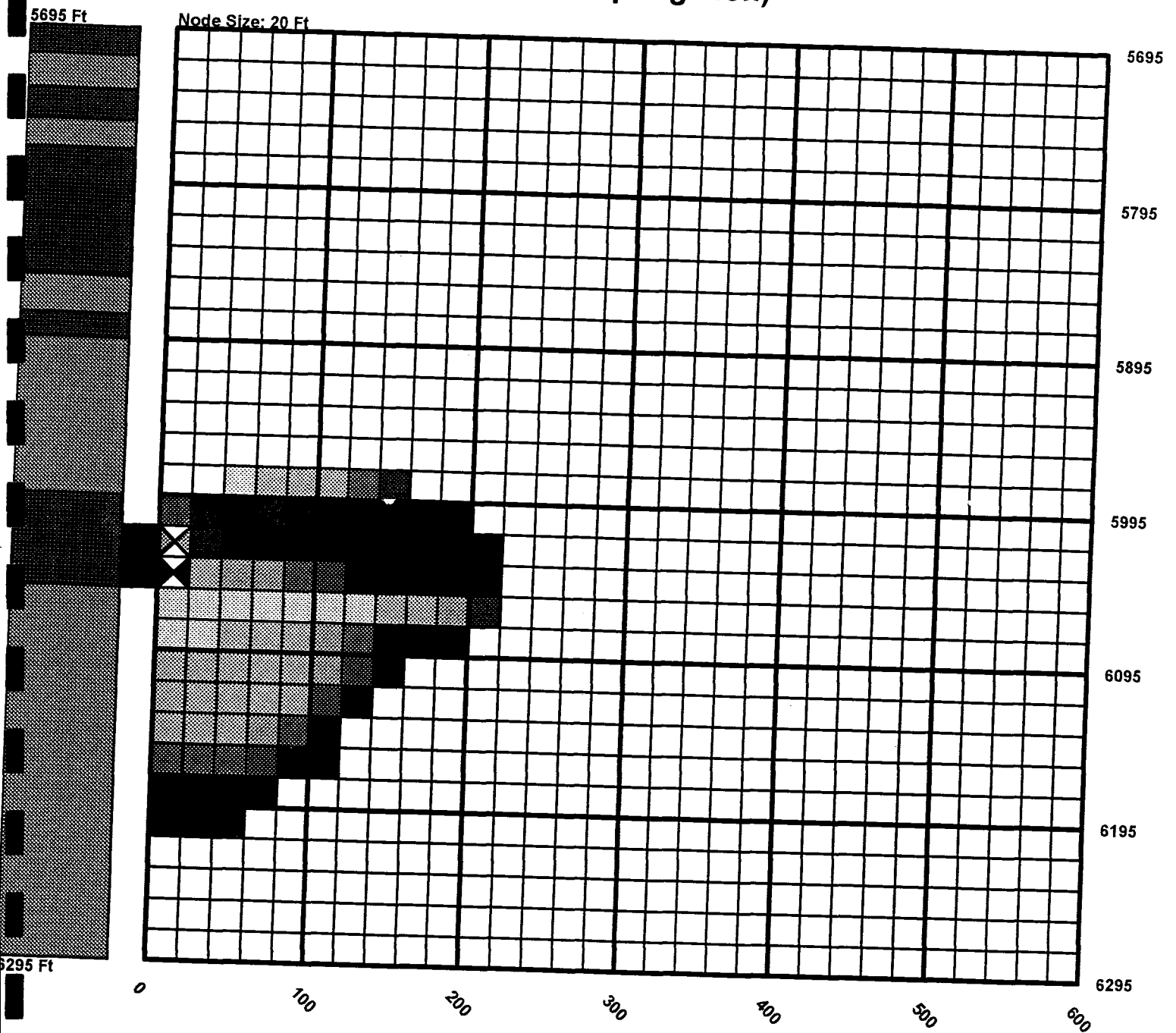
**End of Pumping
Proppant Volume Fraction for Proppant #1
(pounds per gallon)**



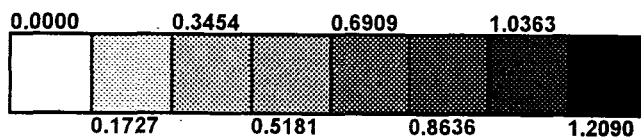
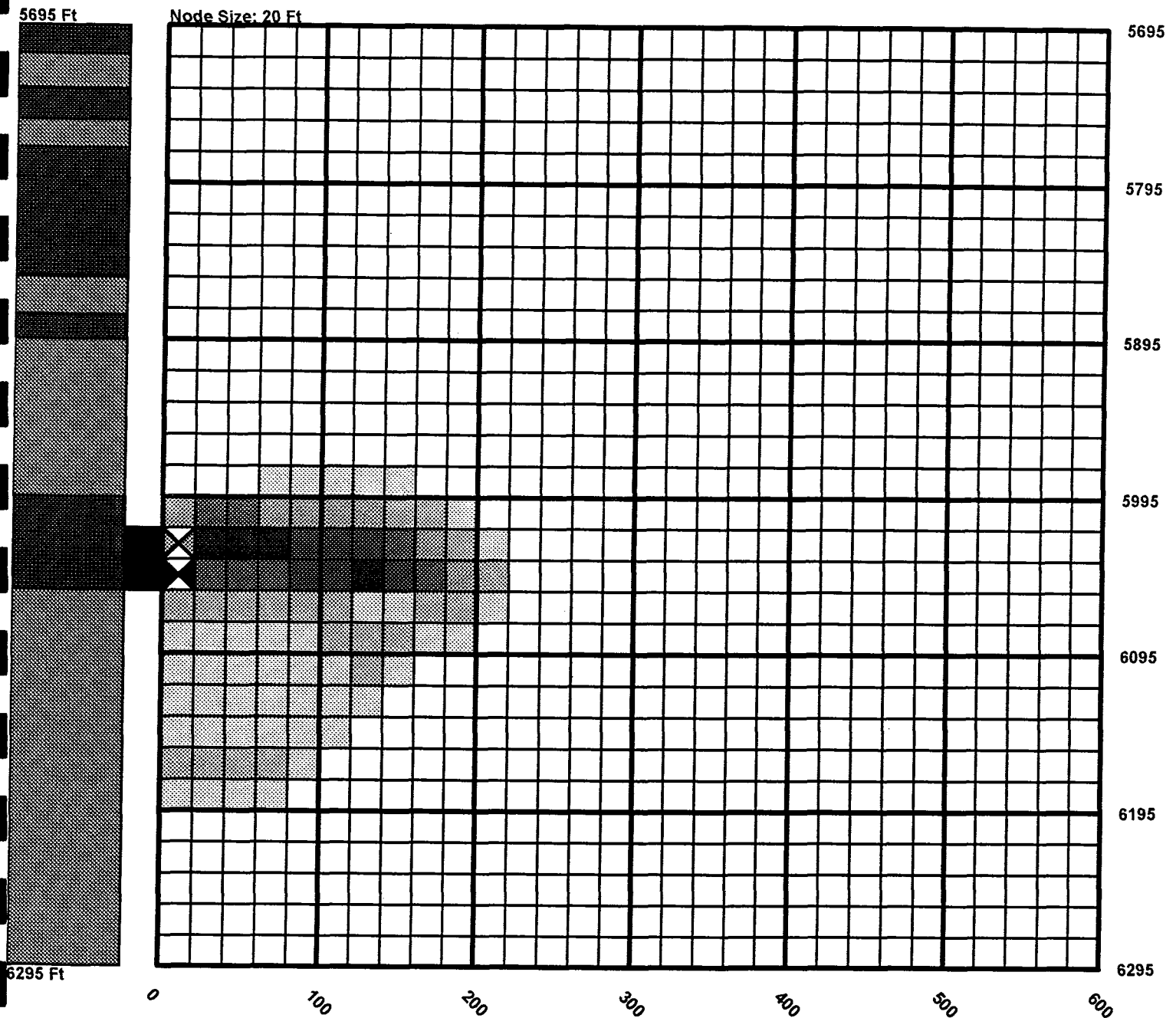
End of Simulation Fracture Width (inches)



End of Simulation
Proppant Volume Fraction for Proppant #1
(pounds per gallon)



**End of Simulation
Proppant Concentration
(pounds per square foot)**



GOHFER



GRID ORIENTED HYDRAULIC FRACTURE EXTENSION REPLICATOR

LICENSED TO: STIM-LAB, Incorporated

A FRACTURING TREATMENT DESIGN PREPARED FOR: APPENDIX C: NAVAJO A STIMULATION RECOMMENDATION

Company:	River Gas Corporation
Well:	D-3
Field:	Drunkards Wash
Formation:	Navajo
Section:	18
Township:	15 s
Range:	10 e
County:	Carbon
State:	Utah

File References:

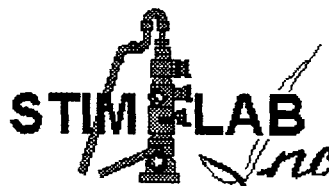
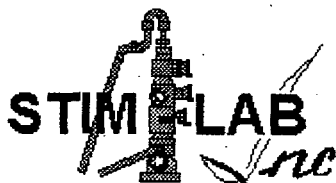
Set: RGU4

Run: 05

This information is presented in good faith, but no warranty is given by the licensee, and the licensee assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or services. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on the input data provided by the Operator. Estimates as to unknown data can be no more accurate than the model, the assumptions, and such input data. The information presented is the licensee's best estimate of the actual result that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which the licensee can assist in selecting. The Operator has superior knowledge of the well, the reservoir, the field and the conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein, it is the Operator's responsibility to notify the owner or owners of the well accordingly.

Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

Freedom from infringement of patents of the licensee or others is not to be inferred.

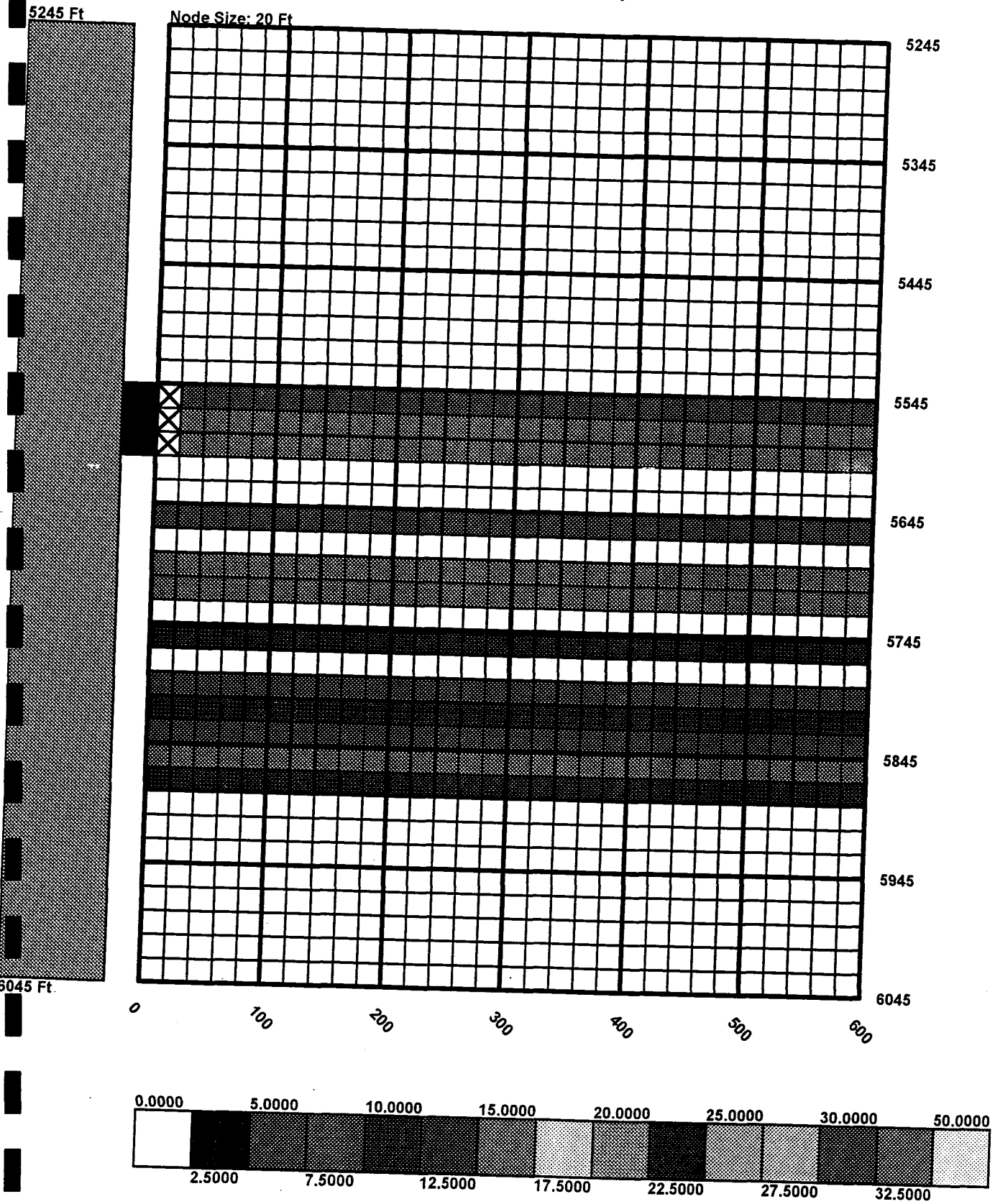


Input Array of Formation Properties

Layer	Poisson's Ratio	Young's Modulus (psi)	Net Closure Stress (psi)	Tensile Strength (psi)	Permeability (md)	Porosity (Fraction)	Reservoir Pore Pressure (psi)	Cw Sqrt(min)
1	0.29	5.62E+06	1978.27	436.20	0.000	0.00	1953.90	0.0000
2	0.30	5.62E+06	2044.99	436.20	0.000	0.00	1961.70	0.0000
3	0.32	1.10E+07	2879.65	436.20	0.000	0.00	1969.50	0.0000
4	0.29	7.77E+06	2273.22	436.20	0.000	0.00	1977.30	0.0000
5	0.27	7.77E+06	2158.39	436.20	0.000	0.00	1985.10	0.0000
6	0.29	9.38E+06	2493.18	436.20	0.000	0.00	1992.90	0.0000
7	0.30	9.38E+06	2561.13	436.20	0.000	0.00	2000.70	0.0000
8	0.30	9.38E+06	2566.36	436.20	0.000	0.00	2008.50	0.0000
9	0.31	9.92E+06	2706.88	436.20	0.000	0.00	2016.30	0.0000
10	0.28	8.85E+06	2381.18	436.20	0.000	0.00	2024.10	0.0000
11	0.26	7.23E+06	2056.63	436.20	0.000	0.00	2031.90	0.0000
12	0.21	6.95E+06	1751.55	436.20	0.000	0.00	2039.70	0.0000
13	0.27	8.10E+06	2267.74	436.20	0.000	0.00	2047.50	0.0000
14	0.30	9.40E+06	2599.73	436.20	0.000	0.00	2055.30	0.0000
15	0.24	1.02E+07	2345.02	436.20	0.000	0.00	2063.10	0.0000
16	0.20	8.40E+06	1927.24	436.20	5.000	0.15	2070.90	0.0019
17	0.21	6.20E+06	1670.27	436.20	37.500	0.15	2078.70	0.0019
18	0.22	5.80E+06	1674.47	436.20	15.000	0.15	2086.50	0.0019
19	0.19	7.70E+06	1794.49	436.20	0.000	0.00	2094.30	0.0000
20	0.19	7.30E+06	1745.45	436.20	0.000	0.00	2102.10	0.0000
21	0.21	8.30E+06	1956.24	436.20	5.000	0.15	2109.90	0.0019
22	0.22	6.00E+06	1714.24	436.20	0.000	0.00	2117.70	0.0000
23	0.25	4.30E+06	1696.92	436.20	50.000	0.15	2125.50	0.0019
24	0.26	4.80E+06	1796.35	436.20	20.000	0.15	2133.30	0.0019
25	0.25	5.60E+06	1814.73	436.20	0.000	0.00	2141.10	0.0000
26	0.27	4.00E+06	1763.15	436.20	10.000	0.15	2148.90	0.0019
27	0.22	7.50E+06	1926.44	436.20	0.000	0.00	2156.70	0.0000
28	0.25	4.40E+06	1730.80	436.20	5.000	0.15	2164.50	0.0019
29	0.28	4.00E+06	1808.78	436.20	10.000	0.15	2172.30	0.0019
30	0.28	4.30E+06	1852.41	436.20	5.000	0.15	2180.10	0.0019
31	0.28	4.10E+06	1897.05	436.20	20.000	0.15	2187.90	0.0019
32	0.25	5.70E+06	1916.50	436.20	10.000	0.15	2195.70	0.0019
33	0.26	4.00E+06	1762.62	436.20	0.000	0.00	2203.50	0.0000
34	0.24	6.50E+06	1937.22	436.20	0.000	0.00	2211.30	0.0000
35	0.23	7.30E+06	1985.76	436.20	0.000	0.00	2219.10	0.0000
36	0.22	7.60E+06	1970.41	436.20	0.000	0.00	2226.90	0.0000
37	0.24	7.80E+06	2087.72	650.00	0.000	0.00	2234.70	0.0000
38	0.22	7.70E+06	1961.65	436.20	0.000	0.00	2242.50	0.0000
39	0.28	4.20E+06	1948.96	436.20	0.000	0.00	2250.30	0.0000
40	0.28	4.00E+06	1927.82	436.20	0.000	0.00	2258.10	0.0000

Node Size (ft) : 20

Input Properties Permeability (md)



Treatment Design

STAGE NUMBER	SUBSTEP	PROPPANT NAME	PROPPANT CONC (lb/gal)	FLUID VOLUME (gallons)	FLUID NAME	SLURRY RATE (BPM)
1	5	20/40 Ottawa	0	8000	PCPPH3895 160 015 sp 01.00	60
2	5	20/40 Ottawa	1	5000	PCPPH3895 160 015 sp 01.00	60
3	5	20/40 Ottawa	2	6000	PCPPH3895 160 015 sp 01.00	60
4	5	20/40 Ottawa	3	8000	PCPPH3895 160 015 sp 01.00	60
5	5	20/40 Ottawa	4	10000	PCPPH3895 160 015 sp 01.00	60
6	5	20/40 Ottawa	6	12000	PCPPH3895 160 015 sp 01.00	60
7	5	20/40 Ottawa	8	4000	PCPPH3895 160 015 sp 01.00	60
8	100	20/40 Ottawa	0	20	PCPPH3895 160 015 sp 01.00	-1
9	30	20/40 Ottawa	0	300	PCPPH3895 160 015 sp 01.00	-1

Fluid Properties

Fluid Name	Zero Shear Viscosity (cp)	n'	Onset of Low Shear Plateau (1/sec)	Onset of High Shear Plateau (1/sec)
PCPPH3895 160 015 sp 01.00	1000	.41	20	1000000

Viscosity at Reservoir Temperature = 60 °F

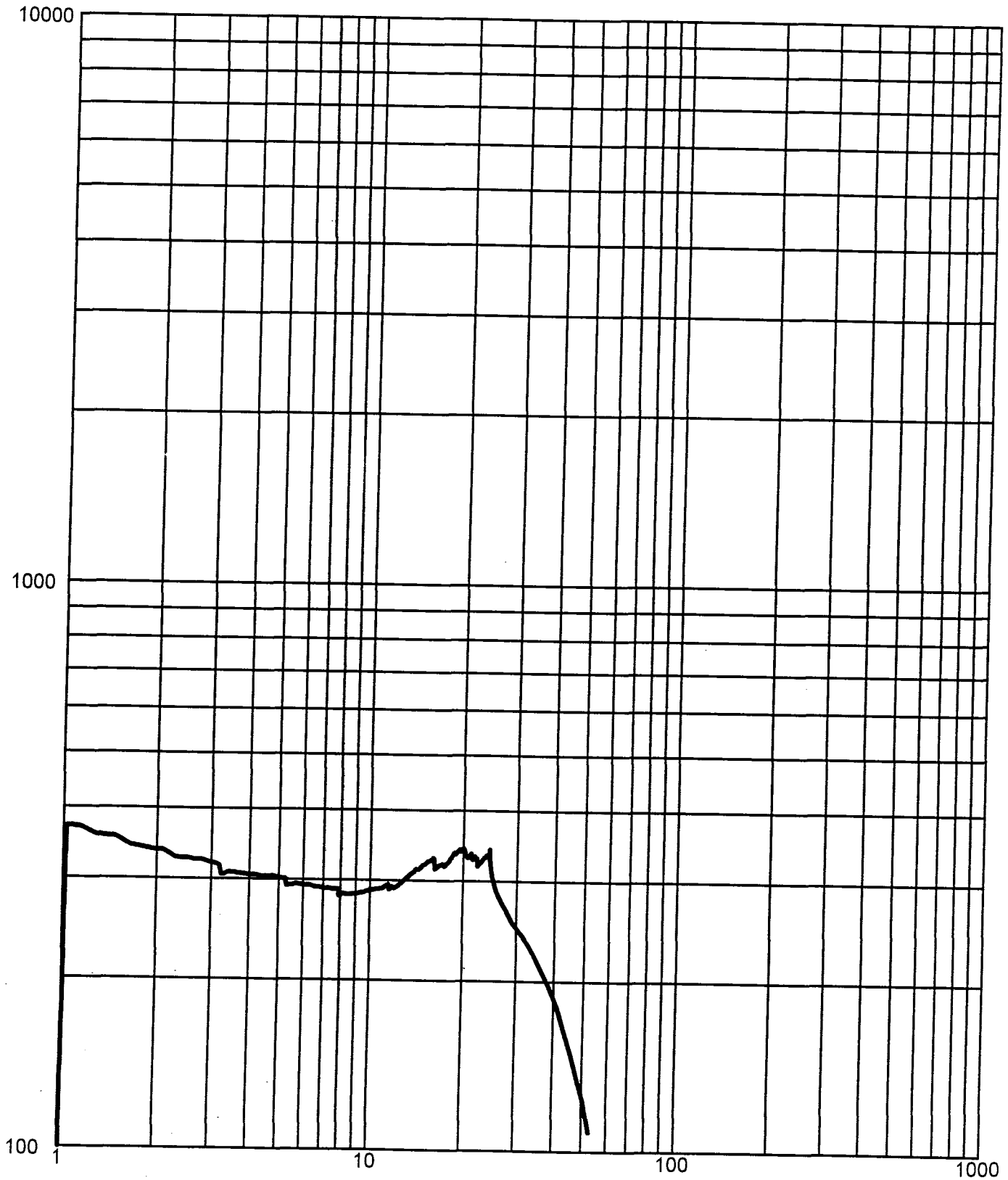
Shear Rate (1/sec)	0.01	40	170	511
Apparent Viscosity (cp)	993	374	176	94

Proppant Properties

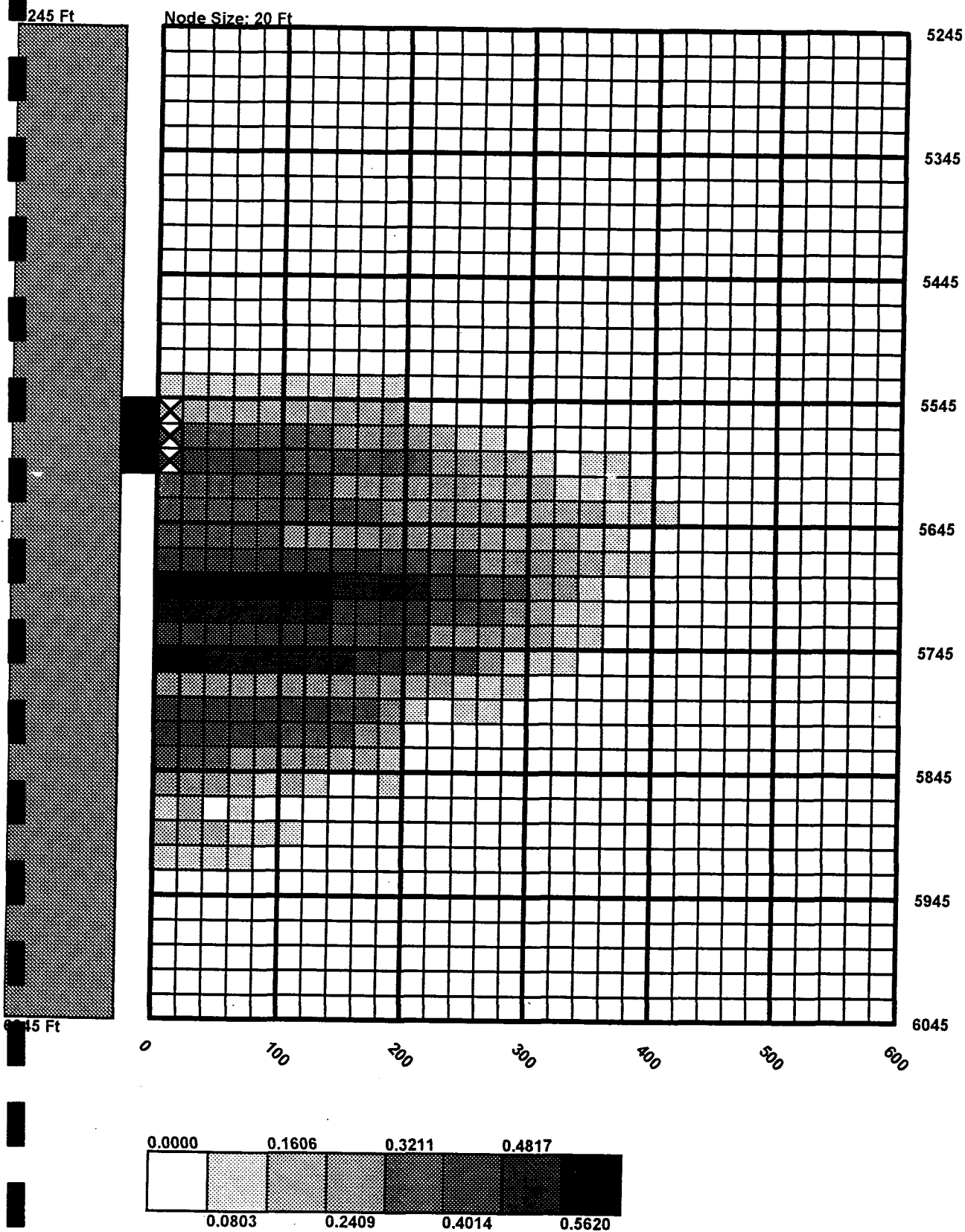
Proppant Name	Density (g/cc)	Size (in)
20/40 Ottawa	2.65	.03

**Net Pressure (BHP - Closure)
Pressure (PSI) vs Time (Minutes)**

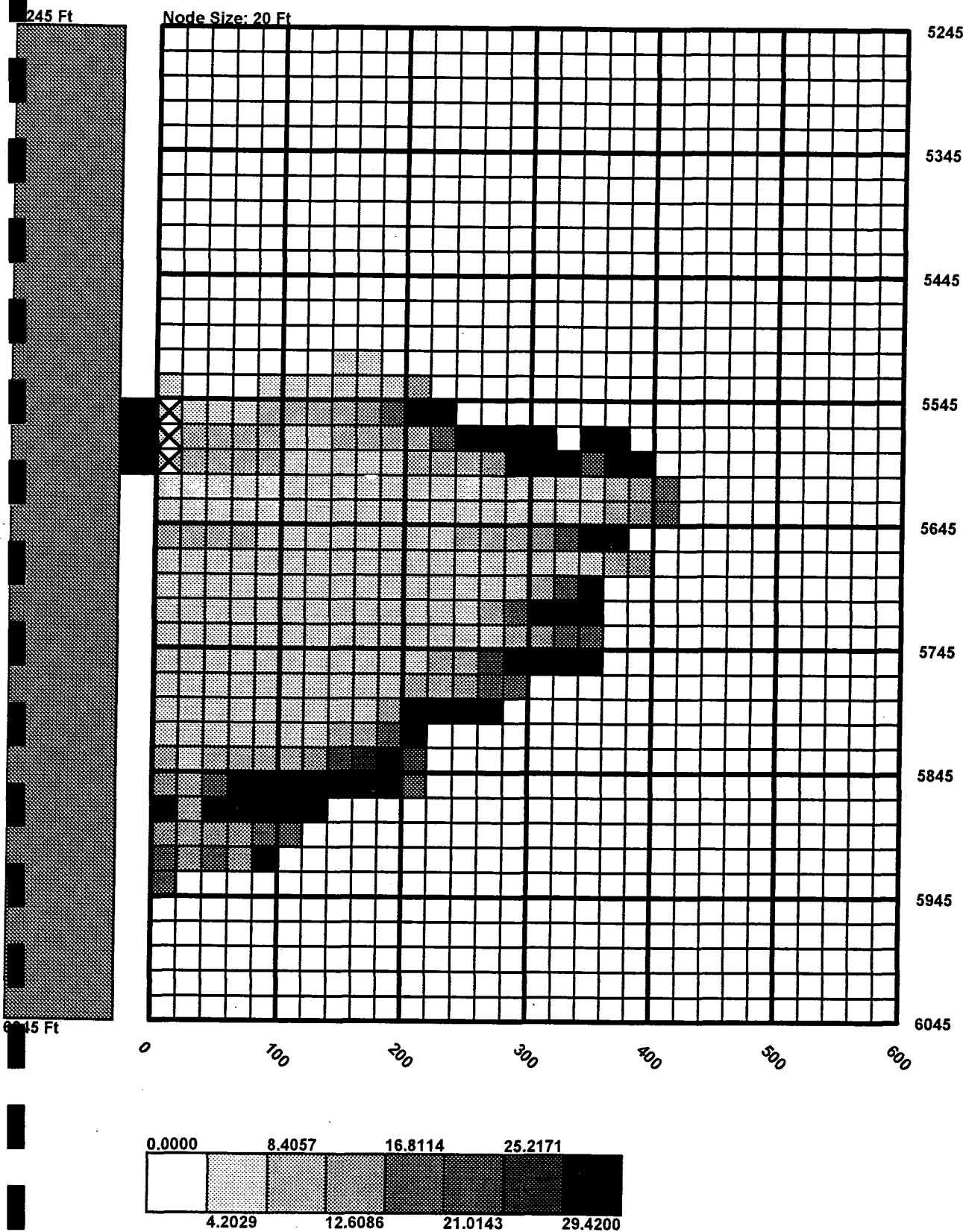
3998 PSI Closure Pressure



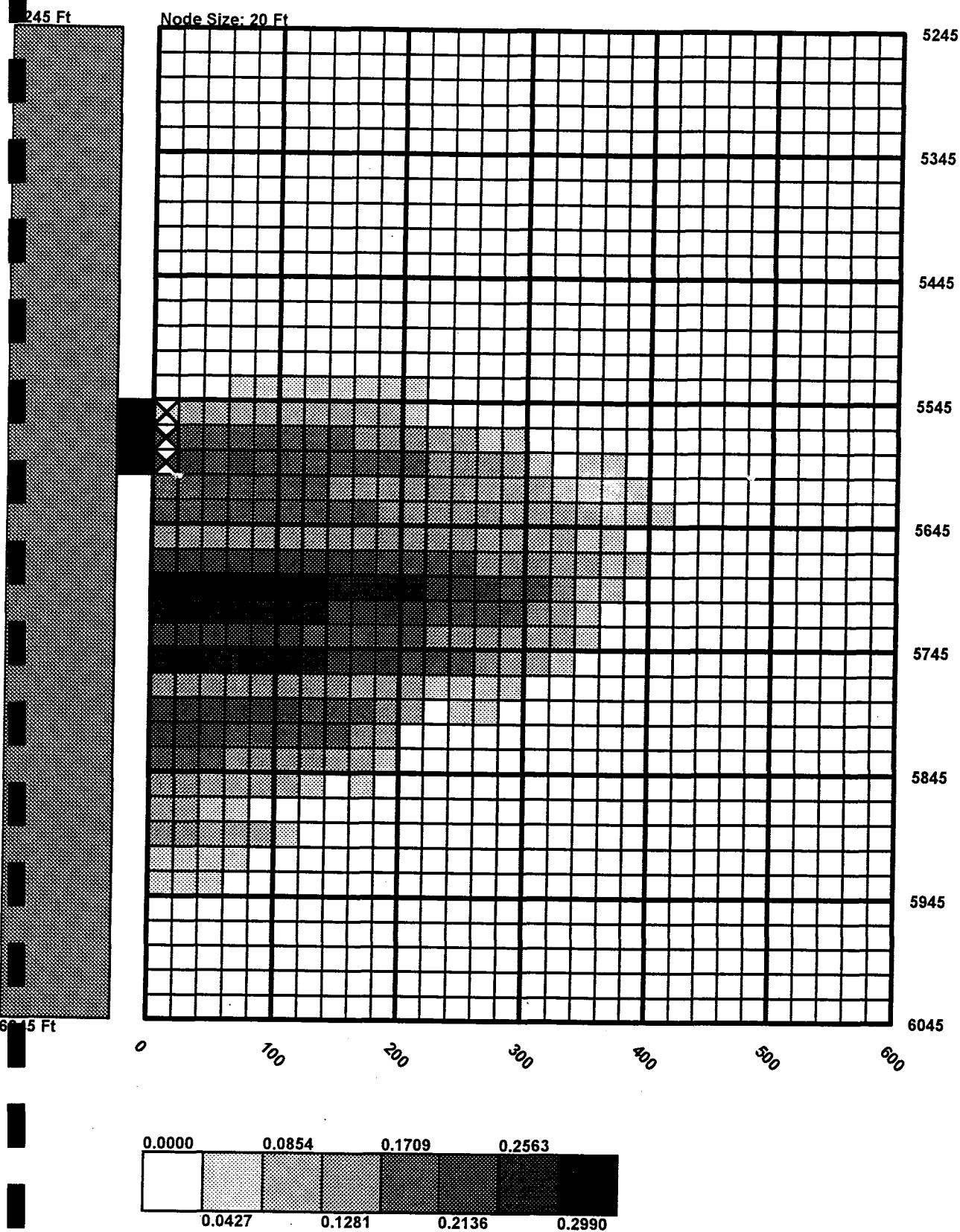
End of Pumping Fracture Width (inches)



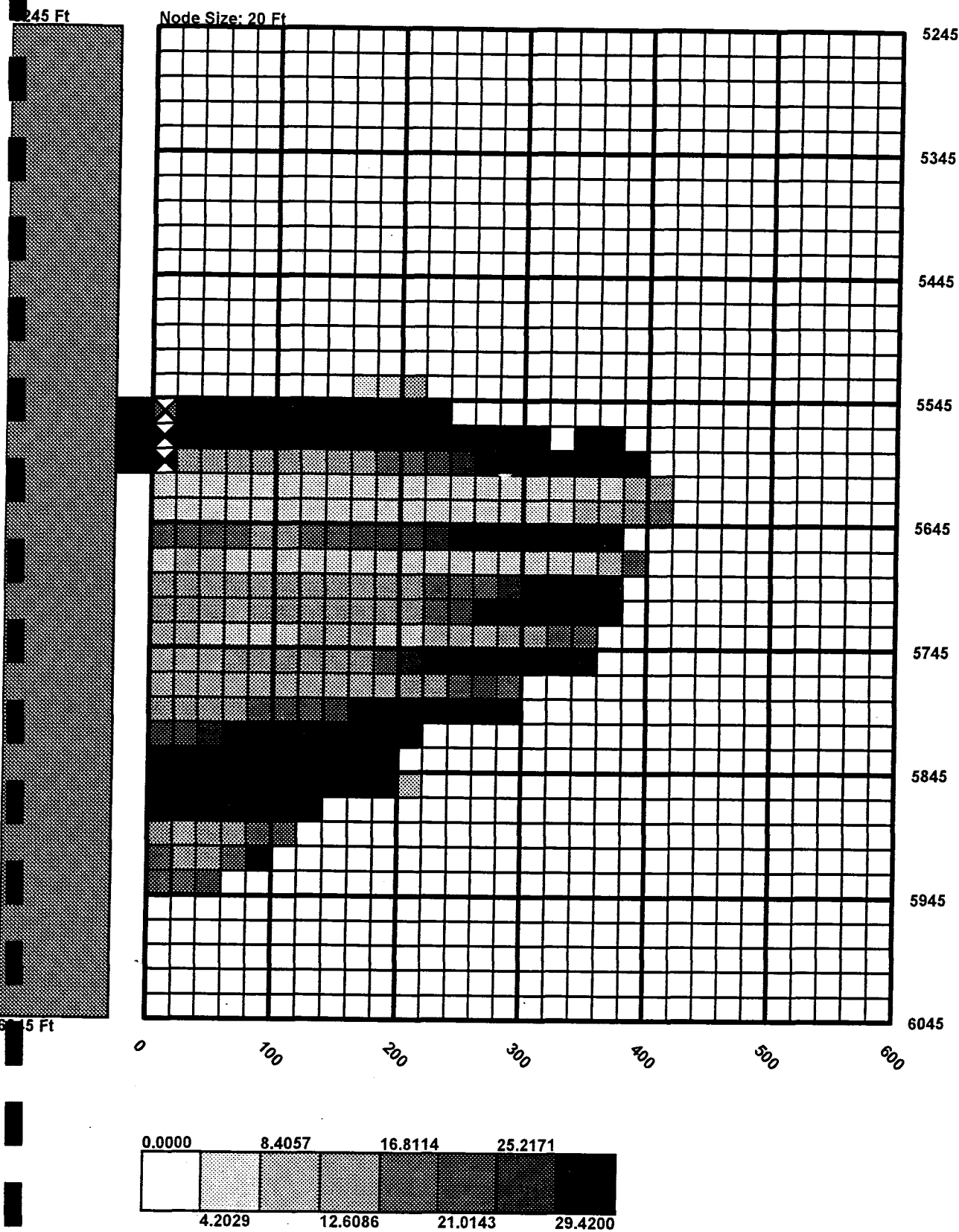
**End of Pumping
Proppant Volume Fraction for Proppant #1
(pounds per gallon)**



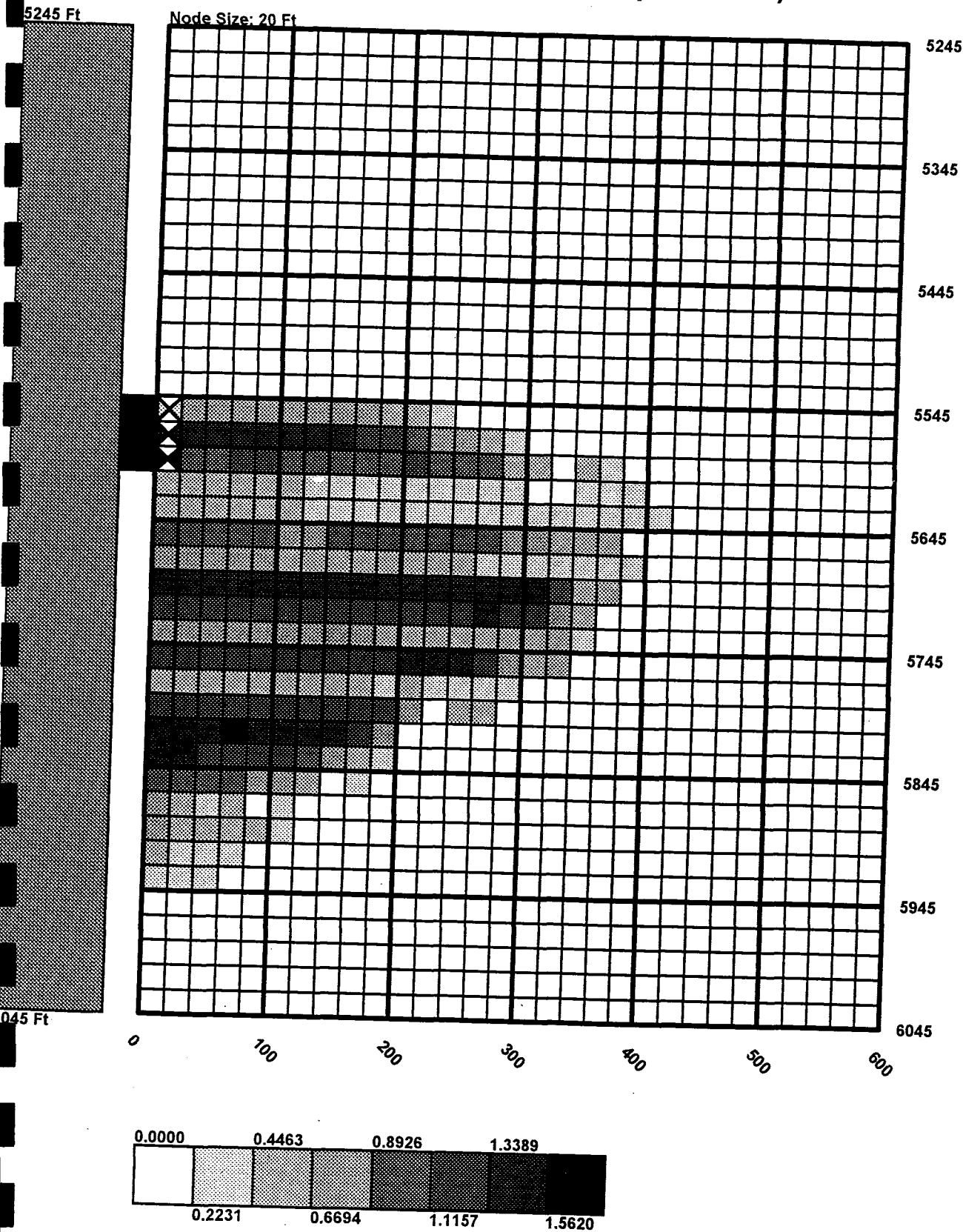
End of Simulation Fracture Width (inches)



End of Simulation
Proppant Volume Fraction for Proppant #1
(pounds per gallon)



Individual Time Step Report Proppant Concentration (pounds per square foot)



GOHFER



GRID ORIENTED HYDRAULIC FRACTURE EXTENSION REPLICATOR

LICENSED TO: STIM-LAB, Incorporated

A FRACTURING TREATMENT DESIGN PREPARED FOR: APPENDIX D: NAVAJO E STIMULATION RECOMMENDATION

Company:	River Gas Corporation
Well:	D-3
Field:	Drunkards Wash
Formation:	Navajo
Section:	18
Township:	15 s
Range:	10 e
County:	Carbon
State:	Utah

File References:

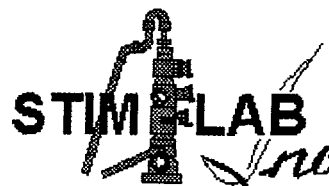
Set: RGU3

Run: 01

This information is presented in good faith, but no warranty is given by the licensee, and the licensee assumes no liability for advice or recommendations made concerning results to be obtained from the use of any product or services. The results given are estimates based on calculations produced by a computer model including various assumptions on the well, reservoir and treatment. The results depend on the input data provided by the Operator. Estimates as to unknown data can be no more accurate than the model, the assumptions, and such input data. The information presented is the licensee's best estimate of the actual result that may be achieved and should be used for comparison purposes rather than absolute values. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which the licensee can assist in selecting. The Operator has superior knowledge of the well, the reservoir, the field and the conditions affecting them. If the Operator is aware of any conditions whereby a neighboring well or wells might be affected by the treatment proposed herein, it is the Operator's responsibility to notify the owner or owners of the well accordingly.

Prices quoted are estimates only and are good for 30 days from the date of issue. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services.

Freedom from infringement of patents of the licensee or others is not to be inferred.



Input Array of Formation Properties

Layer	Poisson's Ratio	Young's Modulus (psi)	Net Closure Stress (psi)	Tensile Strength (psi)	Permeability (md)	Porosity (Fraction)	Reservoir Pore Pressure (psi)	Cw Sqrt(min)
1	0.25	7.60E+06	1973.98	436.20	0.000	0.00	2129.40	0.0000
2	0.21	6.95E+06	1672.47	436.20	0.000	0.00	2137.20	0.0000
3	0.27	8.10E+06	2154.90	436.20	0.000	0.00	2145.00	0.0000
4	0.30	9.40E+06	2472.23	436.20	0.000	0.00	2152.80	0.0000
5	0.24	1.02E+07	2251.07	436.20	0.000	0.00	2160.60	0.0000
6	0.20	8.40E+06	1850.53	436.20	5.000	0.15	2168.40	0.0019
7	0.21	6.20E+06	1591.19	436.20	37.500	0.15	2176.20	0.0019
8	0.22	5.80E+06	1590.56	436.20	15.000	0.15	2184.00	0.0019
9	0.19	7.70E+06	1722.43	436.20	0.000	0.00	2191.80	0.0000
10	0.19	7.30E+06	1673.38	436.20	0.000	0.00	2199.60	0.0000
11	0.21	8.30E+06	1877.16	436.20	5.000	0.15	2207.40	0.0019
12	0.22	6.00E+06	1630.33	436.20	0.000	0.00	2215.20	0.0000
13	0.25	4.30E+06	1595.09	436.20	50.000	0.15	2223.00	0.0019
14	0.26	4.80E+06	1691.83	436.20	20.000	0.15	2230.80	0.0019
15	0.25	5.60E+06	1718.19	436.20	0.000	0.00	2238.60	0.0000
16	0.27	4.00E+06	1653.11	436.20	10.000	0.15	2246.40	0.0019
17	0.22	7.50E+06	1842.53	436.20	0.000	0.00	2254.20	0.0000
18	0.25	4.40E+06	1628.97	436.20	5.000	0.15	2262.00	0.0019
19	0.28	4.00E+06	1695.94	436.20	10.000	0.15	2269.80	0.0019
20	0.28	4.30E+06	1739.57	436.20	5.000	0.15	2277.60	0.0019
21	0.28	4.10E+06	1778.47	436.20	20.000	0.15	2285.40	0.0019
22	0.25	5.70E+06	1814.67	436.20	10.000	0.15	2293.20	0.0019
23	0.26	4.00E+06	1655.35	436.20	0.000	0.00	2301.00	0.0000
24	0.24	6.50E+06	1843.27	436.20	0.000	0.00	2308.80	0.0000
25	0.23	7.30E+06	1896.90	436.20	0.000	0.00	2316.60	0.0000
26	0.22	7.60E+06	1886.50	436.20	0.000	0.00	2324.40	0.0000
27	0.24	7.80E+06	1996.33	650.00	0.000	0.00	2332.20	0.0000
28	0.22	7.70E+06	1880.17	436.20	0.000	0.00	2340.00	0.0000
29	0.28	4.20E+06	1830.37	436.20	0.000	0.00	2347.80	0.0000
30	0.28	4.00E+06	1809.24	436.20	0.000	0.00	2355.60	0.0000

Node Size (ft) : 20

Treatment Design

STAGE NUMBER	SUBSTEP	PROPPANT NAME	PROPPANT CONC (lb/gal)	FLUID VOLUME (gallons)	FLUID NAME	SLURRY RATE (BPM)
1	5	20/40 Ottawa	0	4000	PCPPH3895 160 015 sp 01.00	10
2	5	20/40 Ottawa	1	3000	PCPPH3895 160 015 sp 01.00	10
3	5	20/40 Ottawa	2	3000	PCPPH3895 160 015 sp 01.00	10
4	5	20/40 Ottawa	3	3000	PCPPH3895 160 015 sp 01.00	10
5	5	20/40 Ottawa	4	6000	PCPPH3895 160 015 sp 01.00	10
6	5	20/40 Ottawa	6	2000	PCPPH3895 160 015 sp 01.00	10
7	100	20/40 Ottawa	0	120	PCPPH3895 160 015 sp 01.00	-1

Fluid Properties

Fluid Name	Zero Shear Viscosity (cp)	n'	Onset of Low Shear Plateau (1/sec)	Onset of High Shear Plateau (1/sec)
PCPPH3895 160 015 sp 01.00	1000	.41	20	1000000

Viscosity at Reservoir Temperature = 60 °F

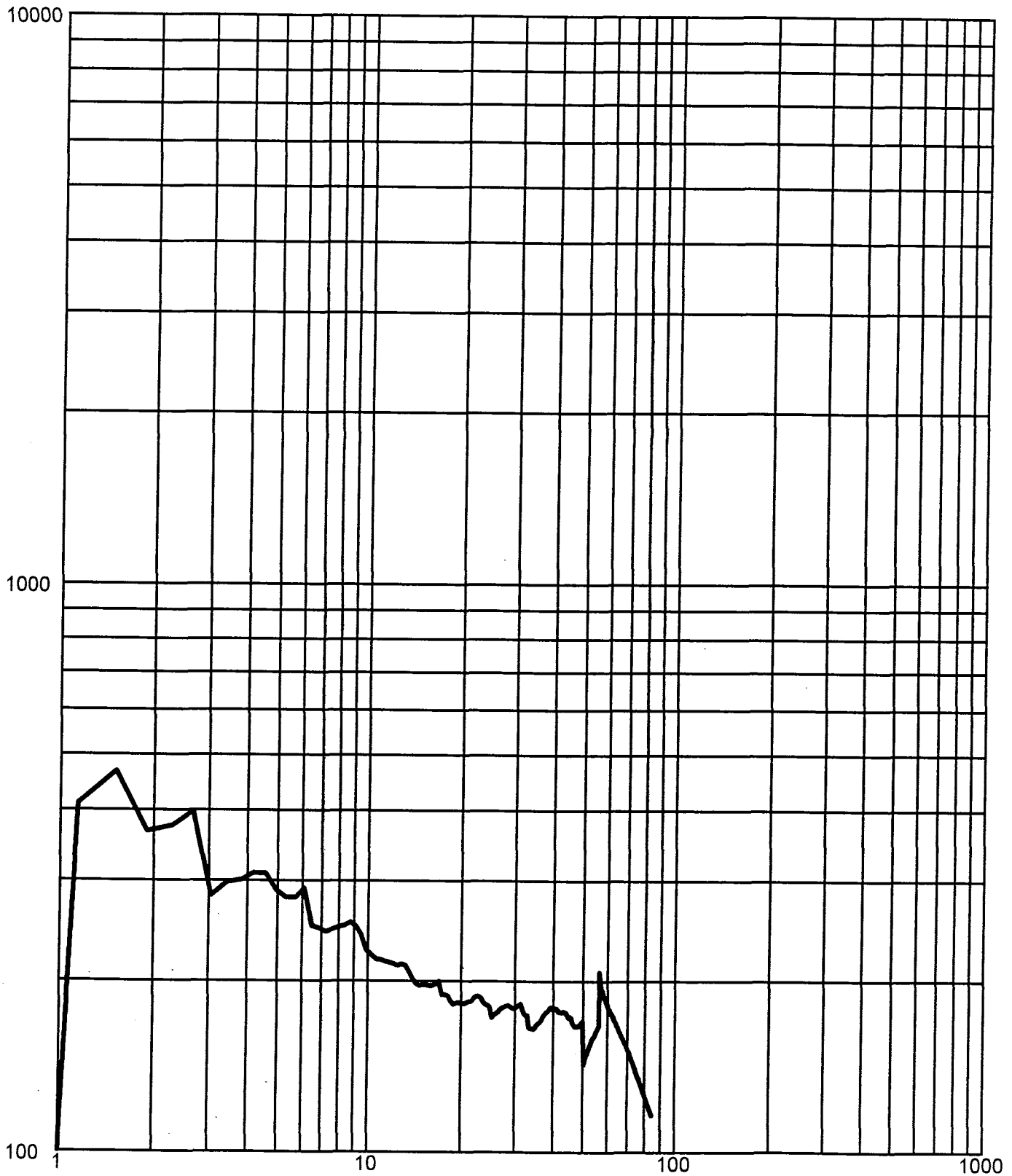
Shear Rate (1/sec)	0.01	40	170	511
Apparent Viscosity (cp)	993	374	176	94

Proppant Properties

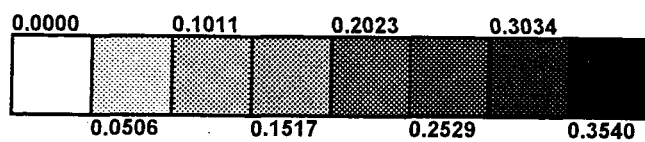
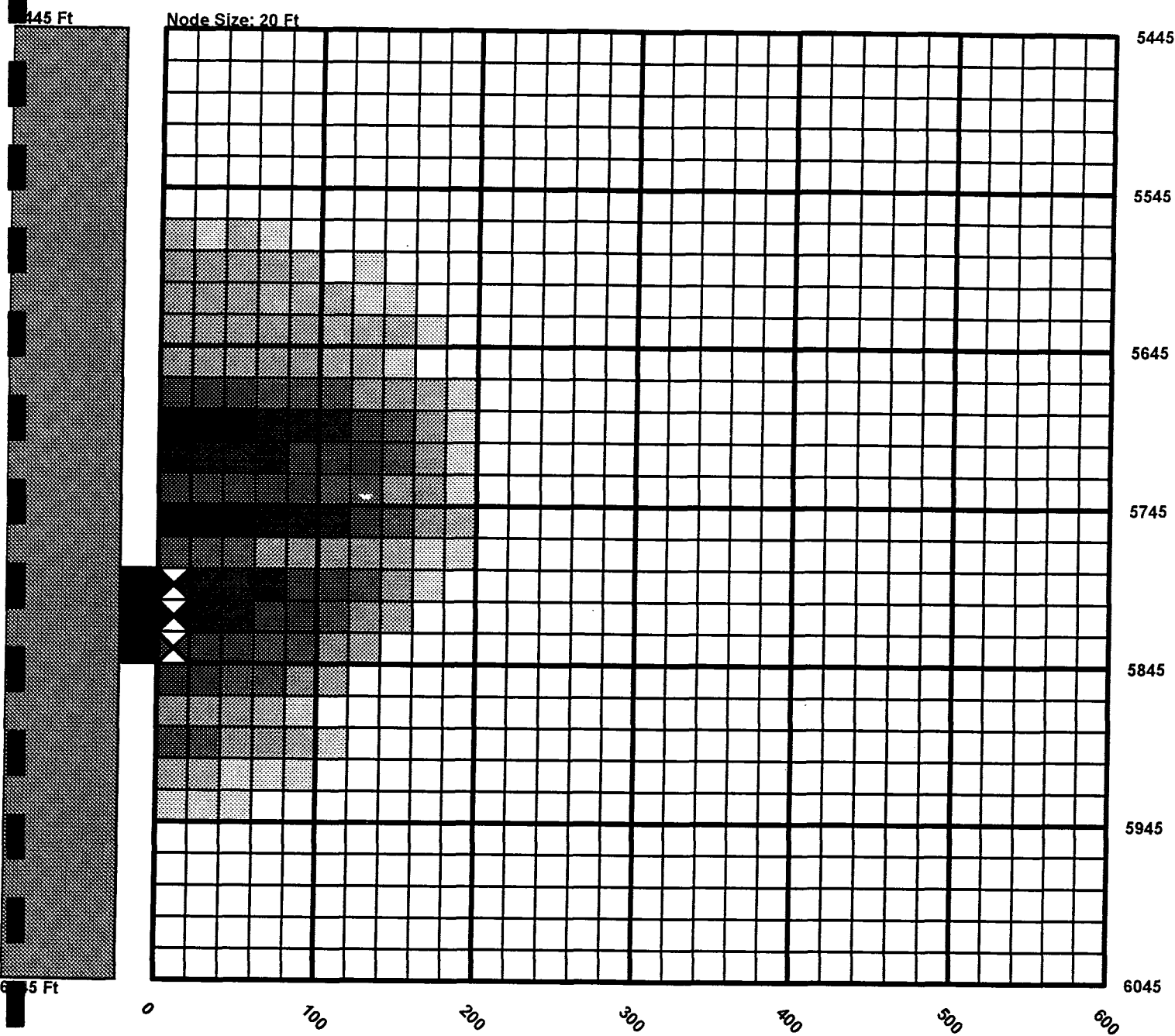
Proppant Name	Density (g/cc)	Size (in)
20/40 Ottawa	2.65	.03

**Net Pressure (BHP - Closure)
Pressure (PSI) vs Time (Minutes)**

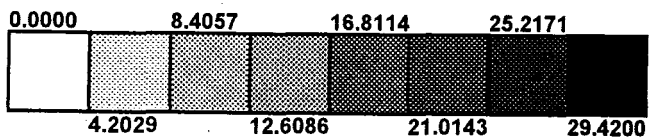
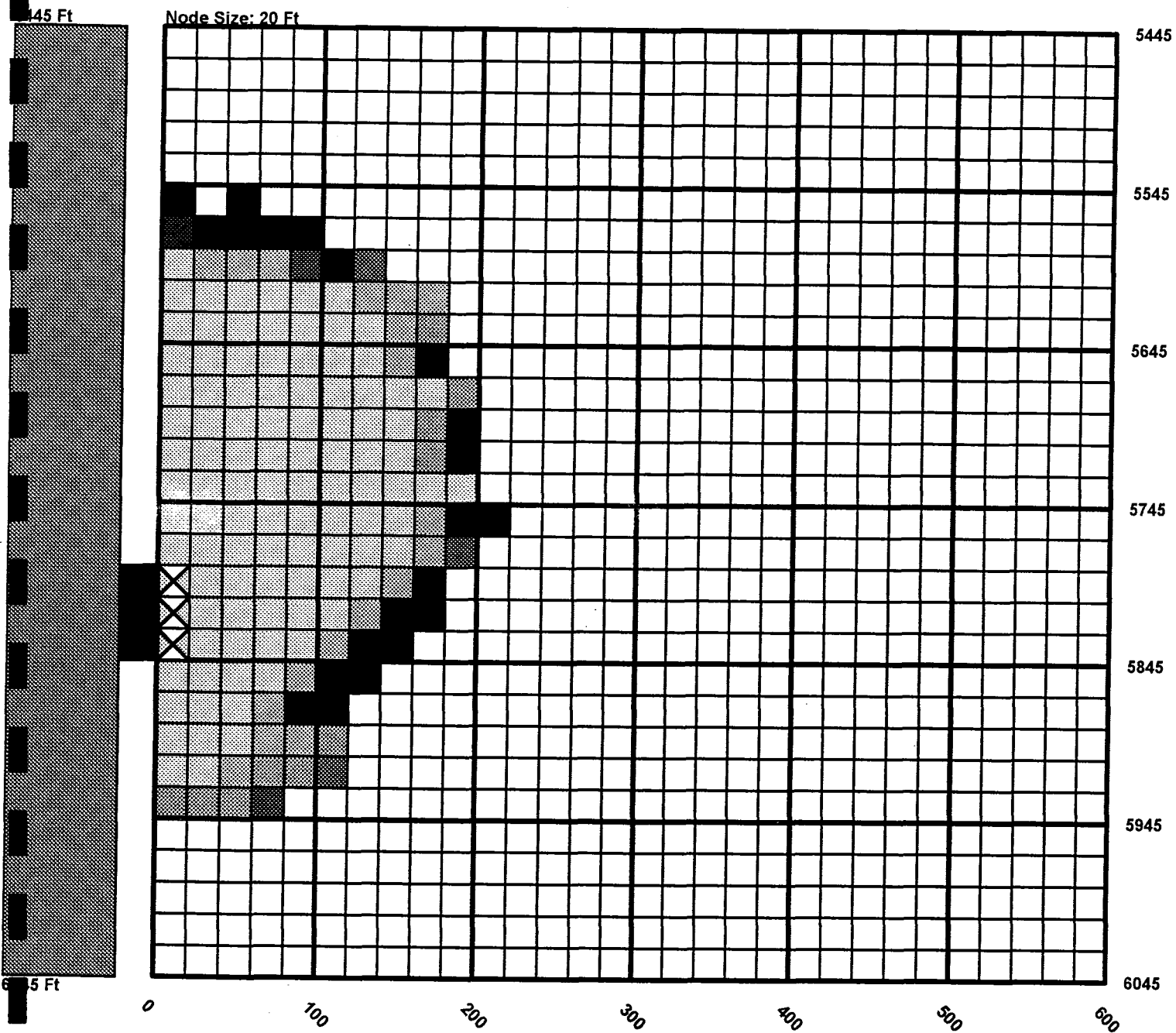
4017 PSI Closure Pressure



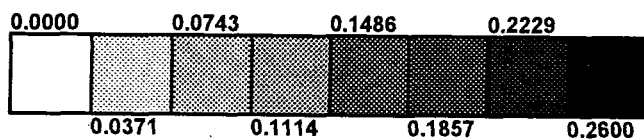
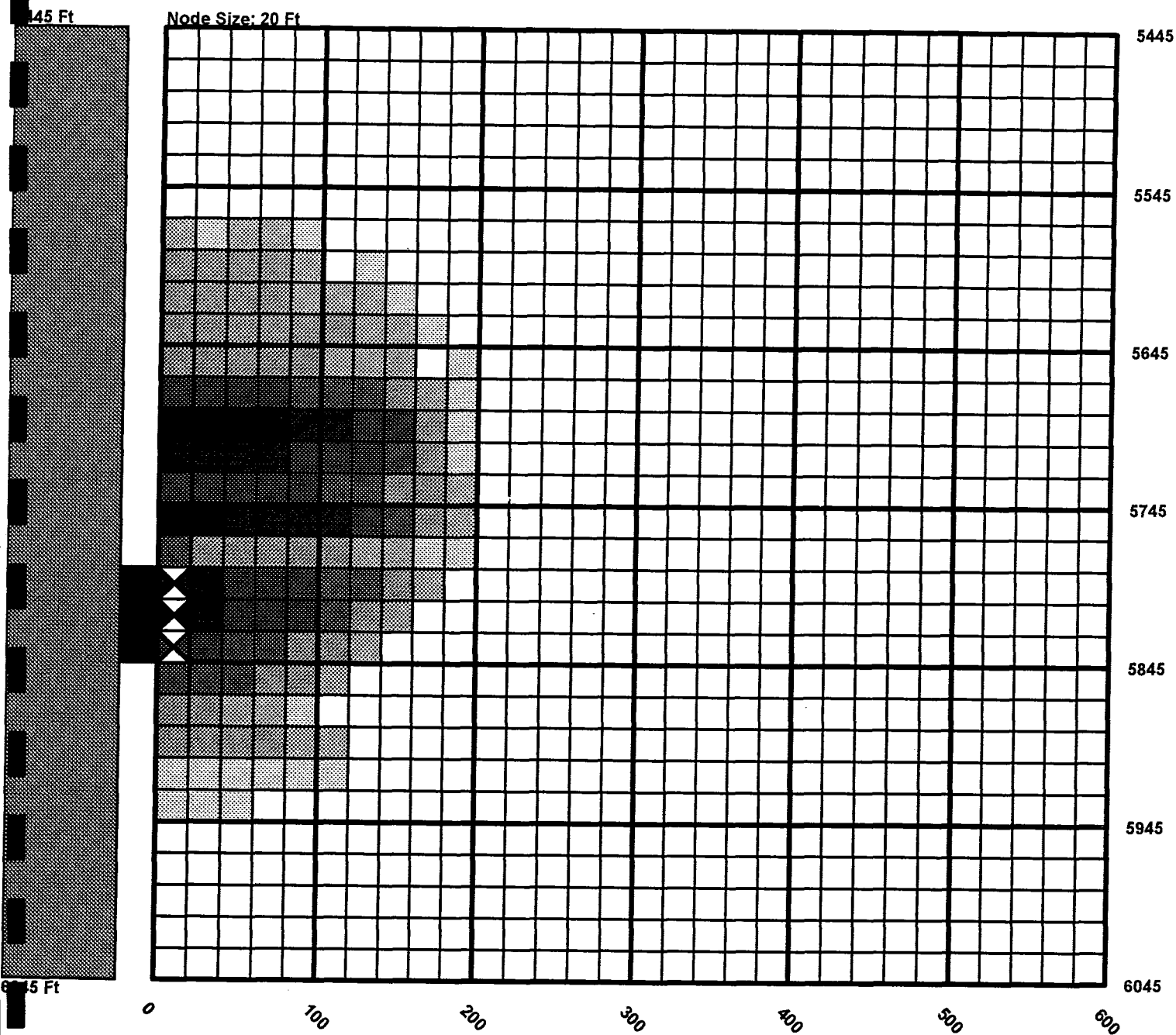
End of Pumping Fracture Width (inches)



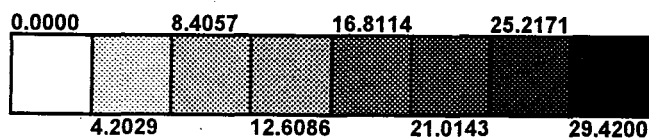
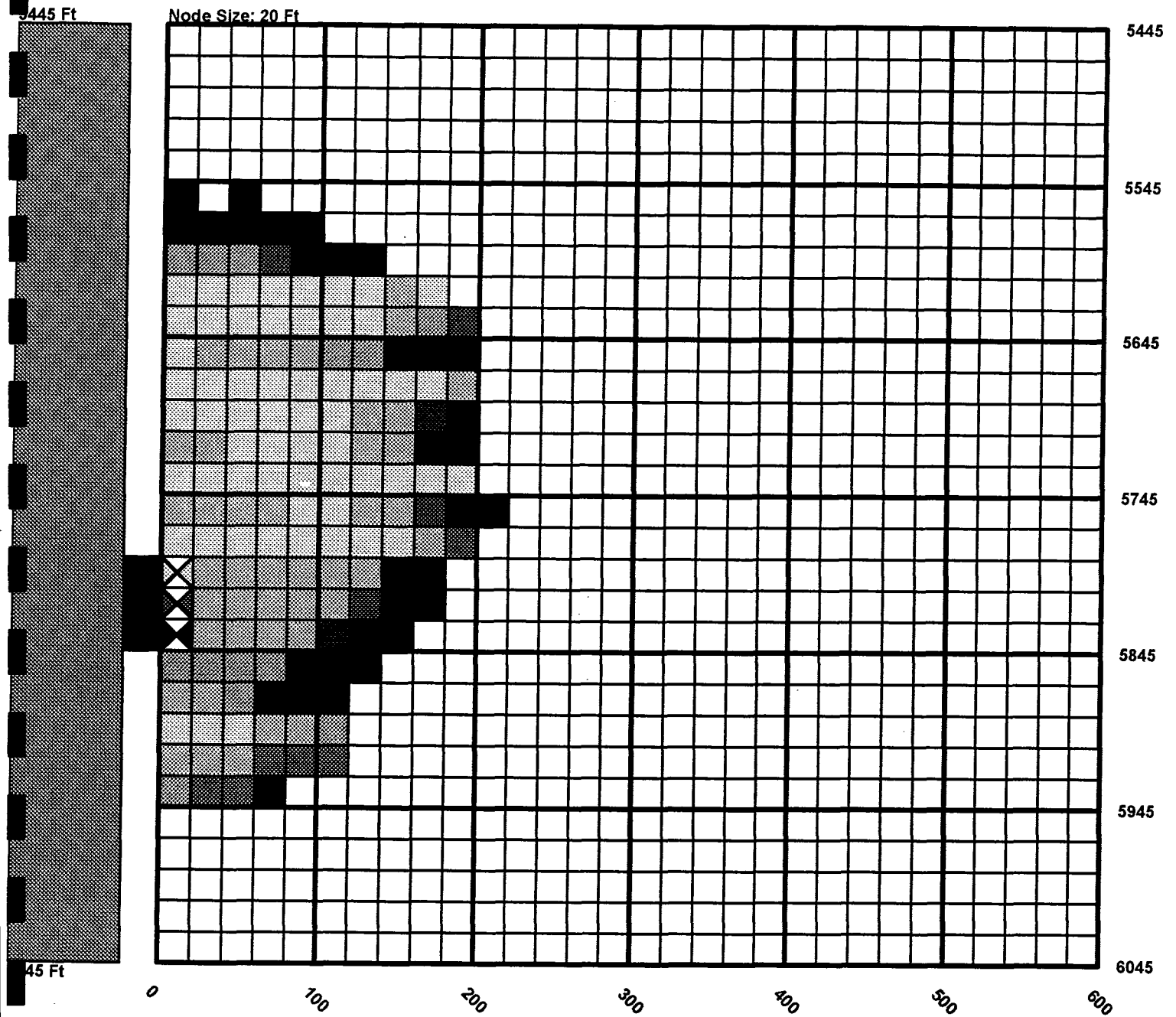
**End of Pumping
Proppant Volume Fraction for Proppant #1
(pounds per gallon)**



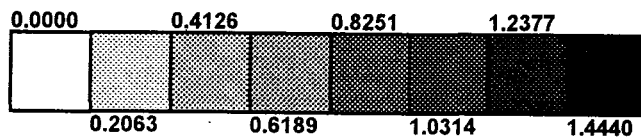
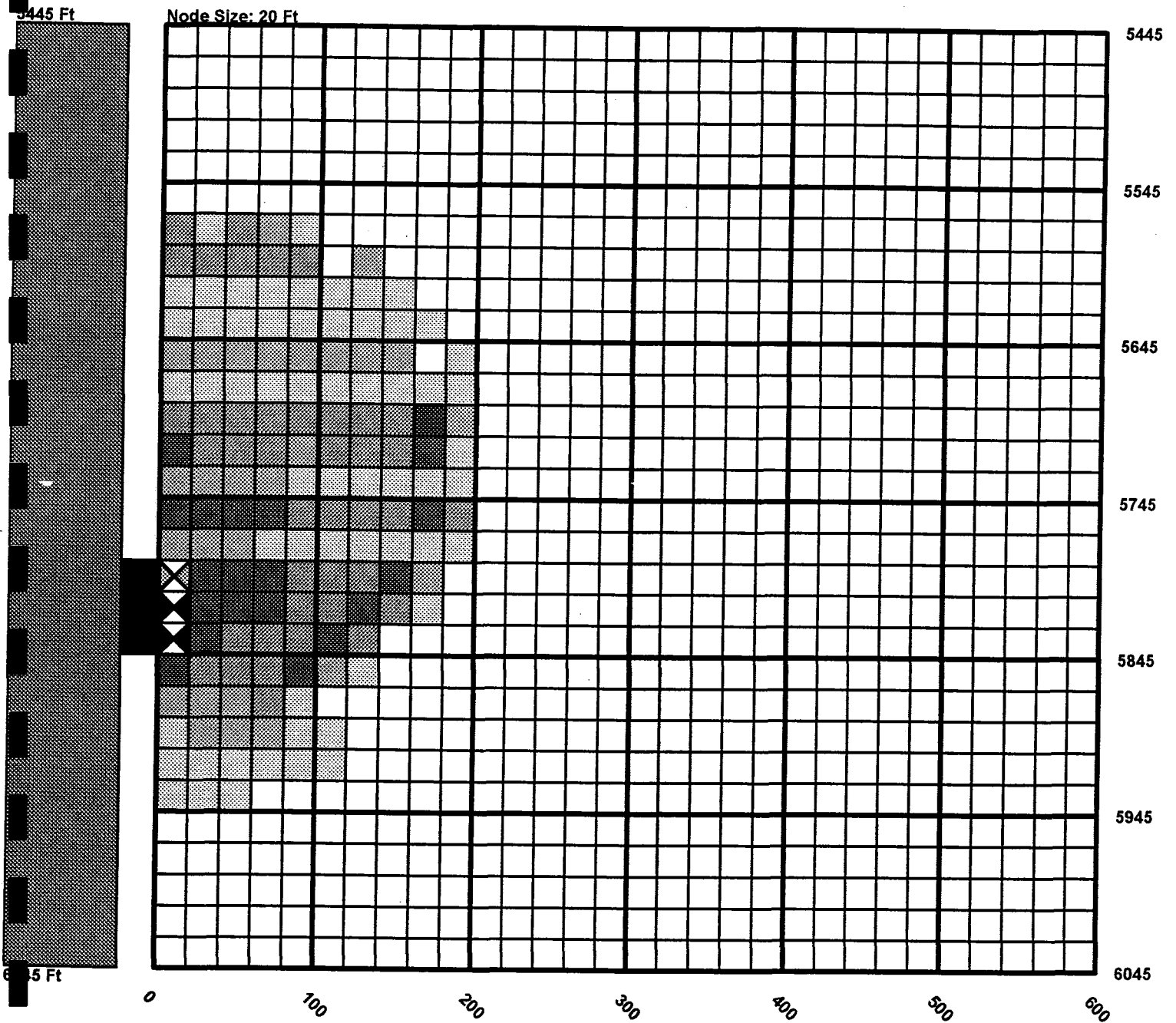
End of Simulation Fracture Width (inches)



End of Simulation
Proppant Volume Fraction for Proppant #1
(pounds per gallon)



**End of Simulation
Proppant Concentration
(pounds per square foot)**



DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Lease Designation and Serial Number

ML-38666

7. Indian Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT for such proposals

8. Unit or Communitization Agreement

UTU67921X

9. Well Name and Number

Utah D-3

10. API Well Number

43-007-30290

11. Field and Pool, or Wildcat

1. Type of Well

☐ Oil Well☐ Gas Well☒ Other (specify)

Disposal Well

2. Name of Operator

River Gas Corporation

3. Address of Operator

511 Energy Center Blvd. Northport, AL 35476

4. Telephone Number

(205) 759-3282

5. Location of Well

Footage : 1600' FSL & 1126' FWL

County : Carbon

QQ, Sec. T., R., M. : Nw/SW, Sec 18, T15S, R10E

State : UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)☐ Abandonment☐ Casing Repair☐ Change of Plans☐ Conversion to Injection☐ Fracture Treat☐ Multiple Completion☒ Other☐ New Construction☐ Pull or Alter Casing☐ Recompletion☐ Shoot or Acidize☐ Vent or Flare☐ Water Shut-OffSUBSEQUENT REPORT
(Submit Original Form Only)☐ Abandonment☐ Casing Repair☐ Change of Plans☐ Conversion to Injection☐ Fracture Treat☐ Other☐ New Construction☐ Pull or Alter Casing☐ Shoot or Acidize☐ Vent or Flare☐ Water Shut-Off

Date of Work Completion

Approximate Date Work Will Start 05/20/96

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Plans are to perforate D-3 in the Navajo A interval (+/-5555') to recover a fluid sample for analysis. After sample is recovered, the bridge plug at 5920 feet will be drilled out to prep well for stimulation.

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 5-16-96

BY: [Signature]

Attached conditions

14. I hereby certify that the foregoing is true and correct.

Name & Signature

Dennis Plowman

Title Reservoir Technician Date 5/16/96

(State Use Only)

Utah Division of Oil, Gas and Mining

Attachment to Sundry Notice and Report on Wells
dated May 16, 1996.

Subject: Request of River Gas Corp. for permission to perforate
Navajo Formation (A zone) and swab sample.
D-3 Well
NW/SW, sec. 18, T15S, R10E, Carbon, County
API = 43-007-30290

Conditions of Approval:

1. Measure water sample conductivity at the well on each swab run.
2. Swab until conductivity of sample stabilizes and a good representative formation water sample can be taken and sent to a lab.
3. Check with the DOGM UIC section (if rep. not on site) before discontinuing swabbing operations.

Schlumberger Well Services
6090 Greenwood Plaza Blvd
Englewood CO 80111
(303) 843-9090

13 May 1996

To: John Hollingshead
From: Garry Williams
Subject: USIT on D-3 well

An overview interpretation of the Ultra Sonic Imager Cement Evaluation log on the above well is as follows;

0 to 462' - No fluid in casing to get a sonic signal.

462' to 2200' - Evidence of cement in place but of very low compressive strength.
Possibly contaminated lead cement.

2200' to 2900' - Cement in place is of better quality and higher compressive strength than above.

2900' to 3770' - Cement in place is of better quality and higher compressive strength than above.

3770' to 4090' - Lower compressive strength than the cement above. Looks like an over displacement of stage 2 through the DV tool (at 4090').

4090' to 6420' - Cement is in place with evidence of minor channels that consist of water and gas cut cement. An example of such channeling is from 5560' to 5760'.

From experience it would be very difficult to squeeze cement into such a channel of water & gas cut cement.

A standard CBL log, which has no radial definition, would indicate a high amplitude casing signal across this type of zone indicating poor to no bonding which people have attempted to squeeze without success.

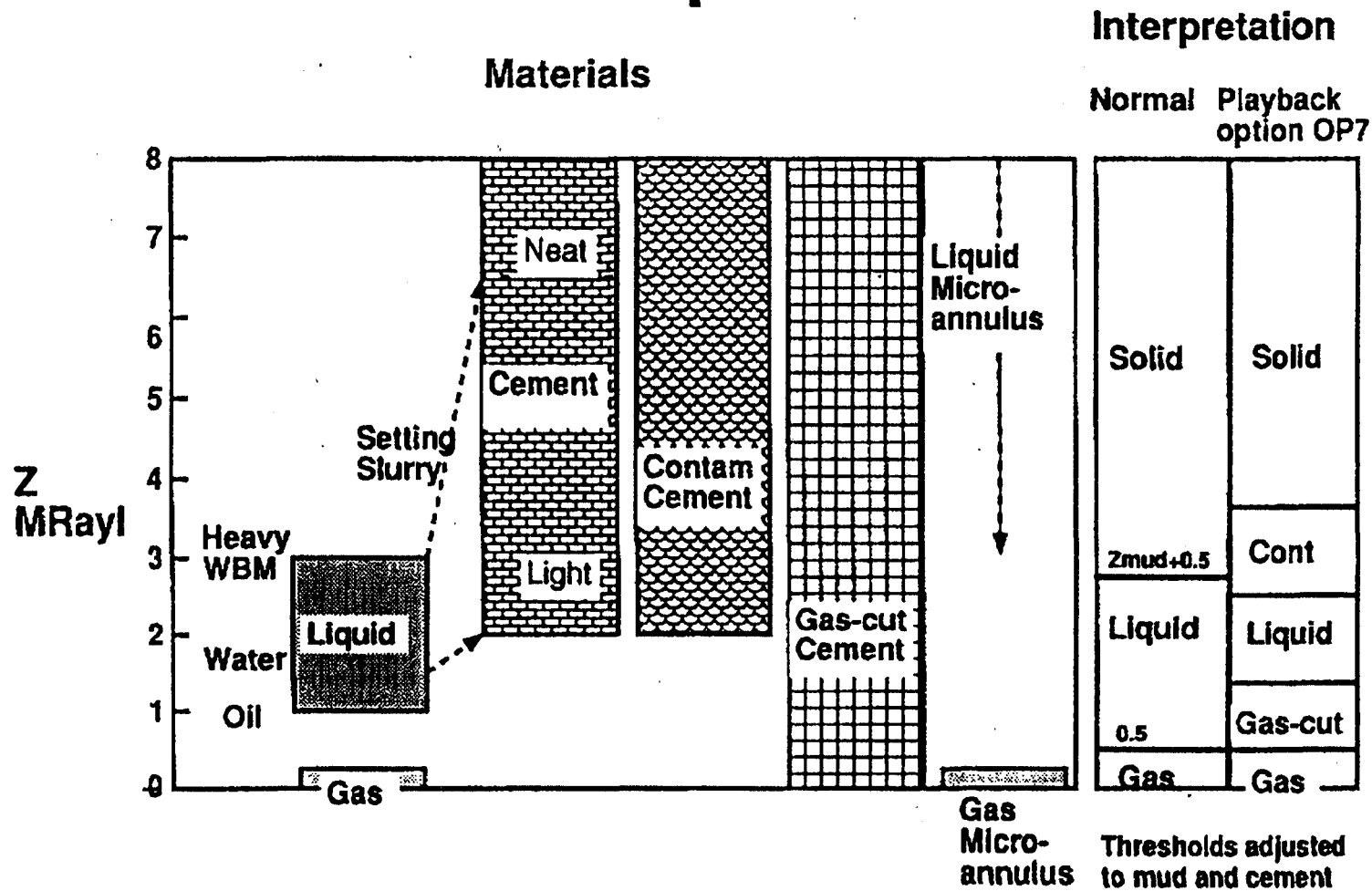
The USIT has the ability to evaluate cement quality radially as opposed to the standard CBL which is an average of the total 360 degrees.

I am also enclosing a diagram which shows the approximate mrayl cut-off values for the gas to liquid to cement interfaces.

Garry Williams

USI

USI Cement Interpretation



AJH- SEP-94



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: State of Utah - Oil, Gas, and Mining
Date Sampled: May 22, 1996
Lab Sample ID.: 25984-01
Field Sample ID.: River Gas D-3

Contact: Dan Jarvis
Date Received: May 22, 1996
Received By: Laurie Hastings
Set Description: One Water Sample

Analytical Results

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

	Method Used:	Reporting Limit: mg/L	Amount Detected: mg/L
TOTAL METALS			
Calcium	6010	0.05	1,700.
Magnesium	6010	0.05	350.
Potassium	6010	0.1	2,200.
Sodium	6010	0.1	57,000.

OTHER CHEMISTRIES

Bicarbonate (as CaCO ₃)	310.1	10.	830.
Chloride	4500 CLB	0.5	70,000.
† Conductivity	120.1	10.	89,000.
pH	150.1	0.1	6.0
Sulfate	375.4	5.0	3,500.
TDS	160.1	1.0	130,000.

† Conductivity reported in $\mu\text{mhos/cm}$ @ 25 C.

Released by:

Laboratory Supervisor

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUCH USE OR THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.

Report Date: 5/23/96

LOGIN CHAIN OF CUSTODY REPORT (1n01)
May 22 1996, 02:36 pm

Login Number: L25984
Account: OGM100 State of Utah - Oil, Gas, and Mining
Site : RIVER GAS D-3

Contact: Dan Jarvis

Laboratory	Client		Collect	Receive	Due
Sample Number	Sample Number	Method Description	Date	Date	PR Date
L25984-1	RIVER GAS D-3		22-MAY-96	22-MAY-96	31-MAY-96
PO# 200472.					
Water	S BICARB	Bicarbonate (as CaCO3)	Expires:05-JUN-96		
Water	S CA	Calcium	Expires:18-NOV-96		
Water	S CL	Chloride	Expires:19-JUN-96		
Water	S COND	Conductivity (Specific)	Expires:19-JUN-96		
Water	S DIG-MET	Total Metal Digestion	Expires:18-NOV-96	may 22	1 Contain
Water	S K	Potassium	Expires:18-NOV-96		
Water	S MG	Magnesium	Expires:18-NOV-96		
Water	S NA	Sodium	Expires:18-NOV-96		
Water	S PH	pH	Expires:23-MAY-96		
Water	S SO4	Sulfate	Expires:19-JUN-96		
Water	S TDS	Total dissolved solids	Expires:29-MAY-96		

CLIENT

ADDRESS

PHONE/FAX

CONTACT

SITE

SAMPLER'S SIGNATURE

SAMPLE ID

SAMPLE
DATE/TIME

MATRIX

OF CONTAINERS
BTX/PH
VOLATILES
SEMIVOLATILES
DLIST METALS
ET PROFILE
Ca, Mg, Na, Cl, K
TDS, ph
conductivity

TURN AROUND TIME

TURN AROUND TIMES

I = Priority I

II = Priority II

III = 5 Day Rush

S = Standard

COMMENTS

AMERICAN

WEST

ANALYTICAL

LABORATORIES

463 West 3600 South

Salt Lake City, Utah

84115

(801) 263-8685

Fax (801) 263-8687

CHAIN OF CUSTODY

LAB # 25984



BTX/benzot
↓

River Gas D-3

5/22 10:55
am

water 1

Relinquished By: Signature

Date/Time

Received By: Signature

Date/Time

PRINT NAME

Relinquished By: Signature

Date/Time

PRINT NAME

Received By: Signature

Date/Time

PRINT NAME

Dispatched By: Signature

Date/Time

PRINT NAME

Received for Laboratory By:

Date/Time

PRINT NAME

PRINT NAME

Laurie Hastings

5/22/96 1435

Quote # /P.O. # 200472

Special Instructions:



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

June 12, 1996

River Gas Corporation
511 Energy Center Blvd.
Northport, Alabama 35476

Re: Drunkards Wash Unit, Utah D-3 Well, Section 18, Township 15 South, Range 10 East,
Carbon County, Utah

Gentlemen:

Pursuant to Utah Admin. Code R649-5-3-3, the Division of Oil, Gas and Mining (the "Division") issues its administrative approval for conversion of the referenced well to a Class II injection well. Accordingly, the following stipulations shall apply for full compliance with this approval:

1. Compliance with all applicable requirements for the operation, maintenance and reporting for Underground Injection Control ("UIC") Class II injection wells pursuant to Utah Admin. Code R649-1 et seq.
2. Conformance with all conditions and requirements of the complete application submitted by River Gas Corporation.

Enclosed with this letter is the Underground Injection Control Permit for this well. If you have any questions regarding this approval or the necessary requirements, please contact Dan Jarvis at this office.

Sincerely,

R.J. Firth

Associated Director

lwp

cc: Dan Jackson, Environmental Protection Agency
Bureau of Land Management, Moab





State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

UNDERGROUND INJECTION CONTROL PERMIT

Cause No. UIC-166

Operator: River Gas Corporation
Well: Utah D-3
Location: Section 18, Township 15 South, Range 10 East,
County: Carbon
API No.: 43-007-30290
Well Type: Disposal

Stipulations of Permit Approval

1. Approval for conversion to Injection Well issued on June 12, 1996
2. Maximum Allowable Injection Pressure: 850 psig
(this limitation can be increased when additional supportive data is submitted)
3. Maximum Allowable Injection Rate: (restricted by pressure limitation)
4. Injection Interval: 5550 feet to 6100 feet (Navajo and Wingate Formations)

Approved by:

R.J. Firth
Associate Director, Oil and Gas

12 June 1996

Date



To: John Hollingshead, River Gas
 Date: June 17, 1996
 Re: Analysis of the Post-Frac Water Injection Test on Well D-3

Completion History of D-3 Prior to the Post-Frac Injection Test

Formation	Perforation Interval (ft)	Stimulation	Date	Top Packer (ft)
Wingate	5997-6058	Fracture	May 24, 1996	5906
Navajo E	5872-5896	Fracture	May 25, 1996	5713
Navajo D	5736-5763	Fracture	May 26, 1996	5527
Navajo C	5663-5728			
Navajo B	5619-5627			
Navajo A	5566-5567			
Navajo A	5561-5602	Fracture	May 29, 1996	--

On June 2, 1996 a water injection test was conducted with all the perforations open. A total of 2350 barrels of KCl water were injected at rates from 5 to 28 BPM. The surface pressures and rates are shown in figure 1. Using the recorded bottom hole pressure, the traditional analysis of the step rate shows a fracture extension pressure of 4106 psi (figure 2). *This corresponds to a surface fracture parting pressure of 1475 psi.* In this particular test, the fracture opening was very distinct and confirmed the results of the conventional analysis of pressure versus rate. The data in figure 3 shows a distinct fracture opening at 4110 psi which is in complete agreement with the analysis in figure 2.

Figure 1: Surface Pressure and Injection Rate for Post Frac Injection Test on Salt Water Disposal Well D-3

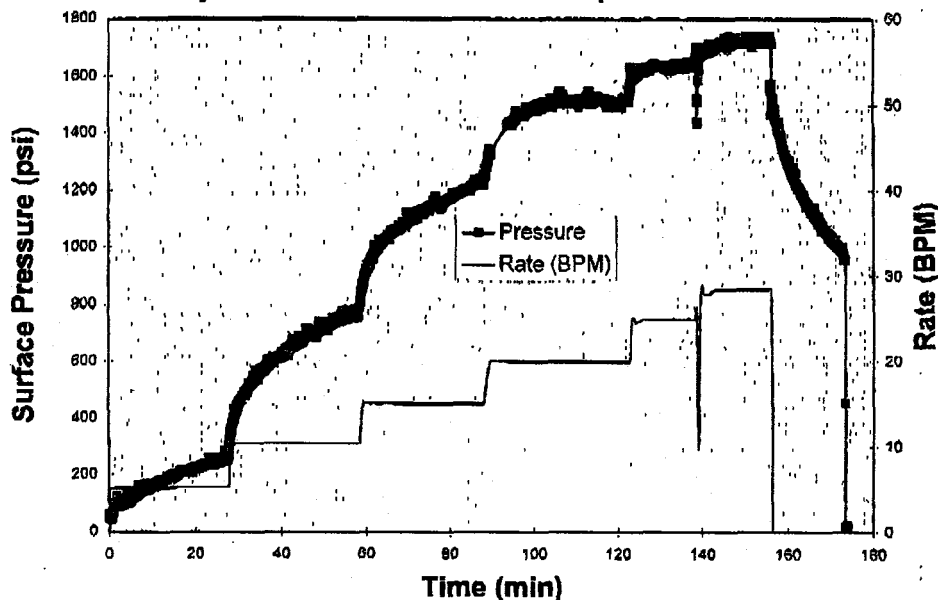


Figure 2: Post-Frac Step Rate Test in D-3

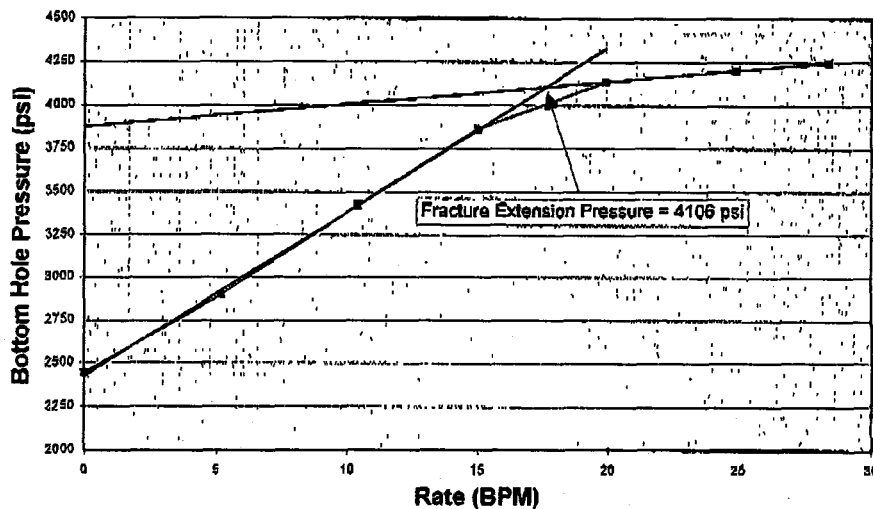
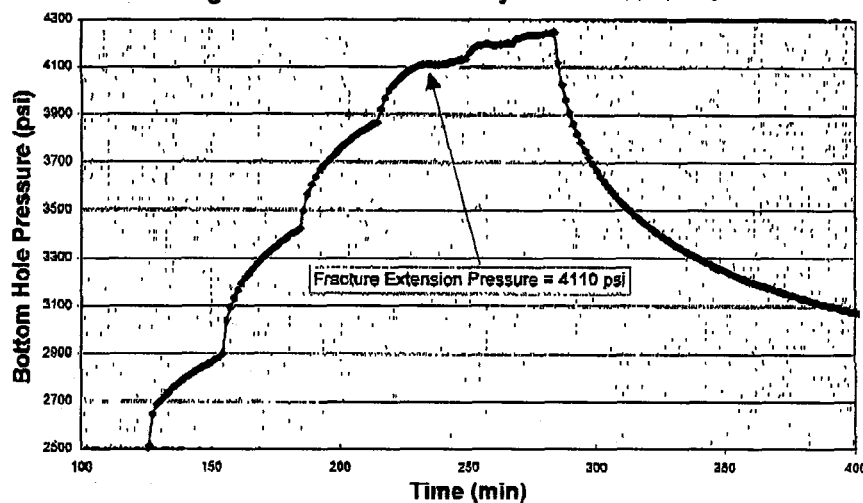


Figure 3: Post Fracture Injection Test in D-3



The fracture extension pressure determined from the initial water injection test in the Wingate was 4438 psi which is a frac gradient of 0.735 at 6035 ft. The same gradient applied to the top depth of the Navajo A at 5561 ft would predict a fracture extension pressure of 4087, which is within 20 psi or 99.5% of the observed pressure 4106 psi. This gives a difference of 332 psi in the measured fracture extension pressures.

These data were also compared to the closure stress computed from the logs. The average closure stress from 6037-6057 ft was 4245 psi and the average closure stress from 5563-5583 ft was 3870 psi. The 20 ft average was used because the stress must be distributed over the fracture process zone which is estimated to be from 10-30 ft for this size fracture. This gives a calculated difference of 375 psi, which is a phenomenal agreement based on the assumptions, which are required to compute stress from the logs. The log calculations were normalized based on the injection pressures observed in the Wingate and no other adjustments were made to the stress predictions.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number

ML 38666

7. Indian Allottee or Tribe Name

8. Unit or Communitization Agreement

Drunkards Wash UTU 67921X

9. Well Name and Number

Utah D-3

10. API Well Number

43-007-30290

11. Field and Pool, or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT— for such proposals

1. Type of Well

☐ Oil Well ☐ Gas Well ☒ Other (specify) Disposal Well

2. Name of Operator

River Gas Corporation

3. Address of Operator

511 Energy Center Blvd. Northport, AL 35476

4. Telephone Number

(205) 759-3282

5. Location of Well

Footage : 1600' FSL & 1126' FWL

Q.Q. Sec. T., R., M. : NW/SW, Sec 18, T15S, R10E

County : Carbon

State : UTAH

12. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- | | |
|---|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other <u>Request change of injection pressure</u> | |

Approximate Date Work Will Start _____

SUBSEQUENT REPORT (Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

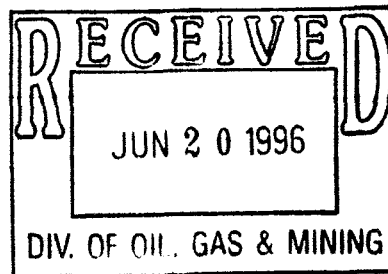
Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

13. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

River Gas Corporation requests that the maximum allowable injection pressure for the Utah D-3 be changed from 850 psi to 1475 psi based on the analysis of the attached report.



14. I hereby certify that the foregoing is true and correct

Name & Signature Dennis PlowmanTitle Reservoir Technician Date 6/17/96

(State Use Only)

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 6-20-96
BY: [Signature]

See Instructions on Reverse Side

DIVISION OF OIL, GAS AND MINING
UNDERGROUND INJECTION CONTROL PROGRAM

**PERMIT
STATEMENT OF BASIS**

Applicant: River Gas Corporation

Well: Utah D-3

Location: Sec. 18, T15S, R10E,
Carbon, County

API: 43-007-30290

Ownership Issues:

The well is located on land owned by the State of Utah and administered by the School and Institutional Trust Lands Administration (SITLA). Mineral ownership is the same as surface. The oil and gas lessee is River Gas Corp., coal lessee is Arjay Oil Company, no other mineral lessee of record according to affidavit of River Gas. Notice to all owners and surface owners within a half mile radius was given by River Gas. Notice was published in the Salt Lake Tribune, Deseret News, and the Sun Advocate. A copy of the notice was mailed to the BLM in Price, the EPA, and SITLA.

Well Integrity:

A 20" conductor pipe was set at 20 feet. A 17-1/2" hole was drilled to 530 feet, 13-3/8" casing was set at 526 feet and cemented to surface with 600 sks of class G. Drilled 12-1/4" hole to 3718 feet, 9-5/8" casing set at 3718 feet and cemented to surface with 1450 sks class G. Drilled a 8-3/4" hole to 6510 feet set 7" casing at 6508 feet cemented to surface with 49 sks 50/50 poz and 323 sks RFC. A Cement Bond Log was run on March 30, 1996, for the 9-5/8" casing. This log shows intermittent sections of excellent to good bonding up to about 2750 feet, above which bonding is fair to poor. An Ultra Sonic Imager Cement Evaluation log was run on April 3, 1996, for the 7" casing. It shows evidence of cement in place up to 462 feet which was the fluid level above which could not be logged. The cement quality varies with some channeling evident but should be more than adequate to isolate the injection interval. A pressure test was performed on the well on April 19, 1996, 2000+ psi was held for about 30 minutes with no bleed off.

Ground Water Protection:

Water contained in subsurface strata in the vicinity is of poor quality, as would be predicted, mostly due to distance from recharge and the presence of evaporites in adjacent and intervening formations. A sample of injection water from the Ferron producing zones provided in the application shows total dissolved solids level of 8,402 mg/l.

The quality of water in the Navajo Sandstone at the subject well location is in excess of 100,000 mg/l total dissolved solids (TDS). This was determined via swab samples taken May 22, 1996. The Navajo is a known fresh water aquifer at many locations in the state. In the general San Rafael Swell area, the quality of water in the Navajo is generally of higher quality nearer the outcrop and recharge areas and poorer with increased depth and distance from recharge (DNR Tech. Pub. 78). This premise has been verified with samples taken from the subject well and other wells along the flow path. The planned

Statement of Basis
D-3 Well

injection of Ferron production water into the Navajo at this location will result in dilution of the more saline water contained in the Navajo. The Wingate Formation shows similar characteristics. A sample of water was swabbed from the top portion of the Wingate on April 5, 1996, testing showed the TDS to be in excess of 200,000 mg/l. This well is some 25 miles further down the flow path from the Texaco SWD#1 well which showed 23,000 mg/l TDS in the Navajo. This large increase in salinity may indicate flow of water from older formations below via faulting or some other undetermined source.

Injection of produced water into the Navajo/Wingate Sandstones at this location is predicted to have little effect on the overall hydrology of the aquifers because of their great extent compared to the volume of fluid that will likely be injected. According to USGS investigation (Tech. Pub. 78), the Navajo contains in the neighborhood of 94,000,000 acre-feet of water in transient storage. Injection at a rate of 15,000 barrels per day for 10 years would result in 6506 acre-feet of water being injected. This equates to about .007% of the water already in storage in the Navajo. At the Drunkards Wash Unit experience has shown that after injection into the Navajo/Wingate for almost three years (~ 3,000,000 barrels) a this well drilled approximately 3 miles away (south) showed negligible pressure increase in the Navajo attributable to the injection.

It is our conclusion after reviewing applicable information including the application submitted by River Gas, that injection into the Navajo and Wingate Sandstones at this location would result in some dilution of the saline water present in the aquifers and a pressure increase near the well which would dissipate after injection ceases. No long term negative impacts are anticipated as a result of injection of produced water into the subject well.

Oil/Gas & Other Mineral Resources Protection:

The Ferron coal/gas zone is protected by tubing, two strings of casing and cement. No other known potentially producible zones were encountered by the well. The injection zone is isolated some 3000 feet below the productive interval.

Bonding:

River Gas has a blanket bond posted with School and Institutional Trust Lands Administration which covers this well.

Actions Taken and Further Approvals Needed:

Proper notice was given as required and no objections were received. Approval of the application was recommended based on the information reviewed and summarized above.

Reviewer(s): G. Hunt

Date: 6-25-96

from perfs
@ 6030 to 6040
C/A 10/11/02
this is Wingate
according to tops
provided by
operator on
completion
document.
Subsequent
add'l perfs
opened up the
Navajo and
Kajenta(?)

River Gas Corporation

511 Energy Center Blvd. • Northport, AL 35476 • (205) 759-3282 • (205) 349-3069 fax

June 18, 1996

Mr. Gil Hunt
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Re: Analysis of Post-frac Water Injection Test on Utah D-3

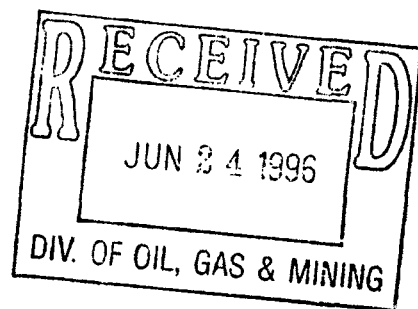
Dear Mr. Hunt:

On June 17, 1996 I sent a sundry to the Division of Oil, Gas and Mining requesting a change in the Maximum Allowable Injection Pressure on the D-3. Attached was a fax copy of the Analysis of the Post-Frac Water Injection Test. I have included with this letter a binded copy for your files. It should be much easier to read.

Sincerely yours,



Dennis Plowman
Reservoir Technician



ANALYSIS OF THE POST-FRAC
WATER INJECTION TEST ON
WELL D-3

PREPARED FOR:

RIVER GAS CORPORATION
3600 WATERMELON ROAD
NORTHPORT, ALABAMA 35476

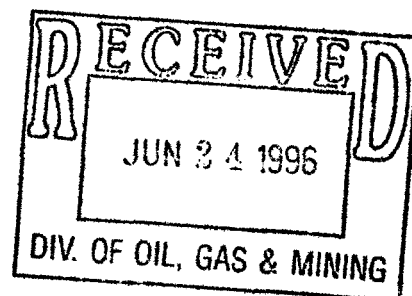
PREPARED BY:

STIM-LAB, INC.
7406 NORTH HWY 81
DUNCAN, OKLAHOMA 73534

P.O. NUMBER: VERBAL/JOHN HOLLINGSHEAD
FILE NUMBER: SL 4503

JUNE 17, 1996

ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM SAMPLES AND LOGS WHICH WERE SUPPLIED. WE CANNOT, AND DO NOT, GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATIONS, AND WE SHALL NOT, EXCEPT IN THE CASE OF GROSS OR WILLFUL NEGLIGENCE ON OUR PART, BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COSTS, DAMAGES OR EXPENSES INCURRED OR SUSTAINED BY ANYONE RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR OFFICERS, AGENTS OR EMPLOYEES. THESE INTERPRETATIONS ARE ALSO SUBJECT TO OUR GENERAL TERMS AND CONDITIONS AS SET OUT IN OUR CURRENT PRICE SCHEDULE.



MICROPHONE



Completion History of D-3 Prior to the Post-Frac Injection Test

Formation	Perforation Interval (ft)	Stimulation	Date	Top Packer (ft)
Wingate	5997-6058	Fracture	May 24, 1996	5906
Navajo E	5872-5896	Fracture	May 25, 1996	5713
Navajo D	5736-5763	Fracture	May 26, 1996	5527
Navajo C	5663-5728			
Navajo B	5619-5627			
Navajo A	5566-5567			
Navajo A	5561-5602	Fracture	May 29, 1996	--

On June 2, 1996 a water injection test was conducted with all the perforations open. A total of 2350 barrels of KCl water were injected at rates from 5 to 28 BPM. The surface pressures and rates are shown in figure 1. Using the recorded bottom hole pressure, the traditional analysis of the step rate shows a fracture extension pressure of 4106 psi (figure 2). *This corresponds to a surface fracture parting pressure of 1475 psi.* In this particular test, the fracture opening was very distinct and confirmed the results of the conventional analysis of pressure versus rate. The data in figure 3 shows a distinct fracture opening at 4110 psi which is in complete agreement with the analysis in figure 2.

Figure 1: Surface Pressure and Injection Rate for Post Frac Injection Test on Salt Water Disposal Well D-3

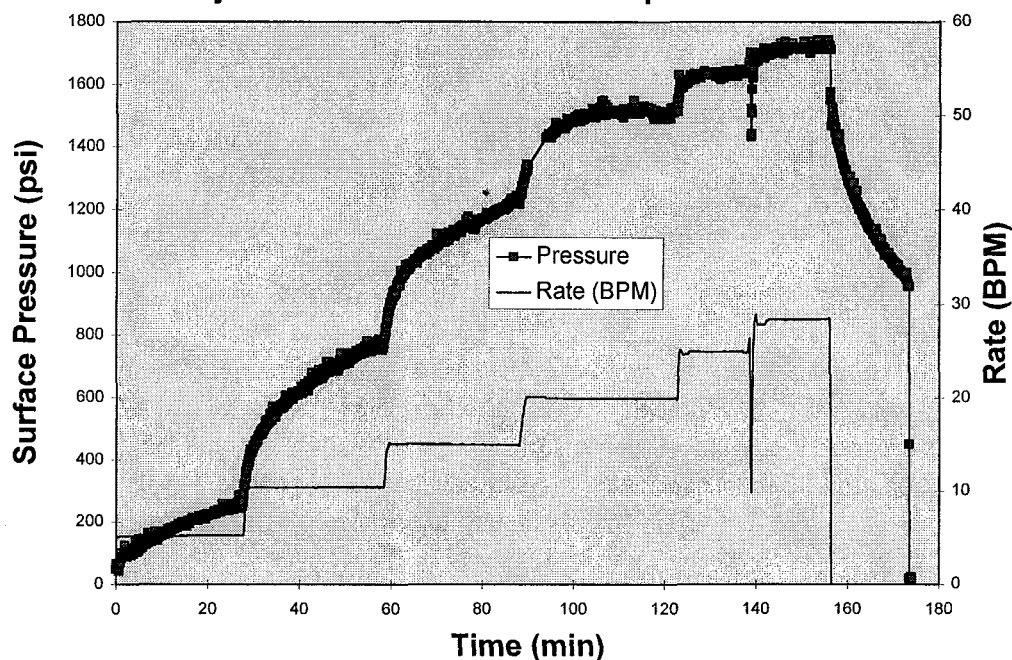


Figure 2: Post-Frac Step Rate Test in D-3

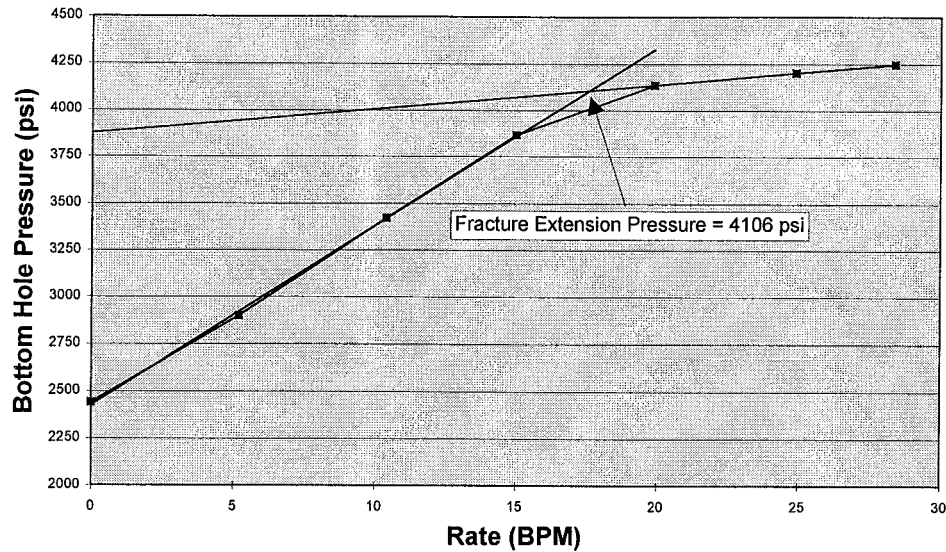
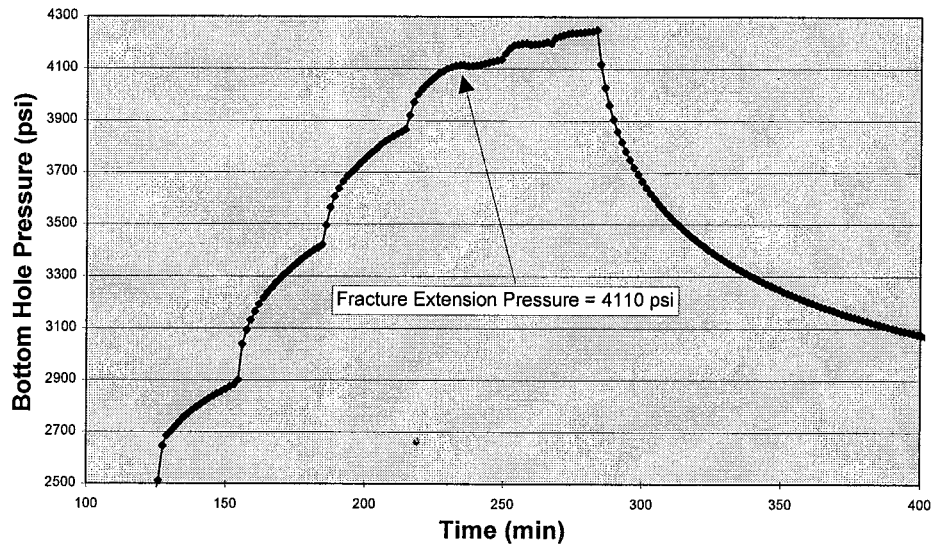


Figure 3: Post Fracture Injection Test in D-3



The fracture extension pressure determined from the initial water injection test in the Wingate was 4438 psi which is a frac gradient of 0.735 at 6035 ft. The same gradient applied to the top depth of the Navajo A at 5561 ft would predict a fracture extension pressure of 4087, which is within 20 psi or 99.5% of the observed pressure 4106 psi. This gives a difference of 332 psi in the measured fracture extension pressures.

These data were also compared to the closure stress computed from the logs. The average closure stress from 6037-6057 ft was 4245 psi and the average closure stress from 5563-5583 ft was 3870 psi. The 20 ft average was used because the stress must be distributed over the fracture process zone which is estimated to be from 10-30 ft for this size fracture. This gives a calculated difference of 375 psi, which is a phenomenal agreement based on the assumptions, which are required to compute stress from the logs. The log calculations were normalized based on the injection pressures observed in the Wingate and no other adjustments were made to the stress predictions.

STATE OF UTAH
DIVISION OF OIL, GAS AND MININGRECEIVED
JUL 12 1996

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

3. LEASE DESIGNATION AND SERIAL NO.

ML-38666

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

N/A

7. UNIT AGREEMENT NAME

UTU 67921X

8. FARM OR LEASE NAME

UTAH

9. WELL NO.

D-3

10. FIELD AND POOL, OR WILDCAT

DRUNKARDS WASH

11. SEC. T. R. M. OR BLOCK AND SURVEY OR AREA

NW/SW SECTION 18,
T15S, R10E, SLB&M1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ Other Water Disposal

2. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____

2. NAME OF OPERATOR

River Gas Corporation

3. ADDRESS OF OPERATOR

1305 S. 100 E., Price, UT 84501

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface

1600' FSL, 1126' FWL, SECTION 18, T15S, R10E

At top prod. interval reported below

At total depth

14. API NO.

43-007-30290

DATE ISSUED

2/14/96

12. COUNTY

CARBON

13. STATE

UTAH

15. DATE SPURD

2/27/96

16. DATE T.D. REACHED

3/27/96

17. DATE COMPL. (Ready to prod.)

6/14/96

(Plug & Abd.)

18. ELEVATIONS (SP. RES. RT. GR. ETC.)

5691' GR

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

6510'

21. PLUG BACK T.R., MD & TVD

N/A

22. IF MULTIPLE COMPL. HOW MANY

N/A

23. INTERVALS DRILLED BY

ROTARY TOOLS

TO TD

CABLE TOOLS

N/A

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)

N/A

25. WAS DIRECTIONAL SURVEY MADE

YES

26. TYPE ELECTRIC AND OTHER LOGS RUN ARRAY INDUCTION 2 linear core & SR
DIPOLAR SONIC, CRM/
DENSITY NEUTRON, FMI, & BOND & SIDEWALL CORES27. WAS WELL CORED YES ☐ NO ☒ (Subsidiary analysis)
DRILL STEM TEST YES ☐ NO ☒ (See separate sides)

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT YELLED
13-3/8"	48 ppf	20'	17-1/2"	600 sks Class G, 2% S-1, 1/4#/sk D-29	
9-5/8"	36 & 40 ppf	3718'	12-1/4"	1250 sks 50/50 Poz/G, 8% D20, 10% D44, 2% S1 + 200 sks Class G, 2% S1, 1/4#/sk D29	
7"	26 ppf	6508'	8-3/4"	323 sk 10-1 RFC; 49 sk 50/50 POZ, 8% D20, 10% D44 + D35;	
				320 sk 50/50 POZ, 8% D20, 10% D44 + D35, 2% S1	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

5561'-5602', 5619'-27', 5635'-47', 5663'-5728',
5736'-63', 5784'-5872', 5888'-96', 5997'-6029',
& 6041'-58'

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL CURED

33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'X. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
			→				
FLOW. TUBING PRIME.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
		→					

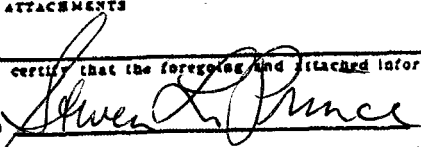
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

TITLE Regulatory ManagerDATE July 8, 1996

See Spaces for Additional Data on Reverse Side

INSTRUCTIONS

This form should be completed in compliance with the Utah Oil and Gas Conservation General Rules. If not filed prior to this time, all logs, tests, and directional surveys as required by Utah Rules should be attached and submitted with this report.

ITEM 18: Indicate which elevation is used as reference for depth measurements given in other spaces on this form and on any attachments. ITEMS 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

ITEM 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

ITEM 33: Submit a separate completion report on this form for each interval to be separately produced (see instruction for items 22 and 24 above).

37. SUMMARY OF POROUS ZONES:				38. GEOLOGIC MARKERS		
Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.				Name	Meas. Depth	Top True Vert. Depth
Formation	Top	Bottom	Description, contents, etc.			
Navajo Sandstone	5550'	5915'	Description: Lt. tan, finegrained, crossbedded sandstone. Perforations: 5561'-5602', 5619'-27', 5635'-47', 5663'-5728', 5736'-63', 5784'-5872', & 5888'-96'.			
Wingate Sandstone	6000'	6056'	Description: Lt. tan to pink, finegrained, cross-bedded sandstone. Perforations: 5997'-6029', 6041'-58'.			

PERMITTING DIVISION
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells; deepen existing wells; or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other (specify) Disposal Well		6. Well Name and Number UTU67921X
2. Name of Operator River Gas Corporation		7. Indian Allottee or Tribe Name
3. Address of Operator 511 Energy Center Blvd. Northport, AL 35476		8. Unit or Communitization Agreement
4. Telephone Number (205) 759-3282		9. API Well Number 43-007-30290
5. Location of Well Footage : 1600' FSL & 1126' FWL Co. Sec. T. R. M. : NW/SW Sec 18, T15S, R10E		10. Field and Pool, or Wildcat Drunkards Wash

County : Carbon

State : UTAH

NOTICE OF INTENT
(Submit in Duplicate)

- | | |
|---|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other: Increase in Surface Injection Pressure | |

Approximate Date Work Will Start 10/25/96 - 11/08/96

SUBSEQUENT REPORT
(Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other | |

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.
* Must be accompanied by statement verification report.

3. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

River Gas requests a surface injection pressure of 1550 psi for a two week period for the Utah D-3 well.

**APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING**
DATE: 10-24-96
BY: [Signature]

For one week test period.

I hereby certify that the foregoing is true and correct.

Name & Signature Dennis Plowman

(Date Use Only)

Title Reservoir Technician Date 10/24/96

8. Lease Designation and Serial Number

ML - 38666

7. Indian Allottee or Tribe Name

8. Unit or Communitization Agreement

UTU67921X

9. Well Name and Number

Utah D-3

10. API Well Number

43-007-30290

11. Field and Pool, or Wildcat

Drunkards Wash

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT for such proposals.

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other (specify) **Disposal Well**

2. Name of Operator

River Gas Corporation

3. Address of Operator

511 Energy Center Blvd. Northport, AL 35476

4. Telephone Number

(205) 759-3282

5. Location of Well

Footage : 1600' FSL & 1126' FWL
Co. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E

County : Carbon

State : UTAH

2. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- | | |
|--|--|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input checked="" type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other | |

Approximate Date Work Will Start

SUBSEQUENT REPORT (Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other | |

Date of Work Completion

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

Must be accompanied by a cement verification report.

3. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

River Gas Corp. requests permission to acidize the D-3 Disposal Well to correct any gel damage that may exist as a result from prior stimulation work. The job will consist of 5000 gallons of 15% HCl, 2800 barrels of produced water, and 1400 perf balls. Pump rates should range between 20 to 25 bpm. A junk basket run will be made after the job to make sure all balls have unseated.

I hereby certify that the foregoing is true and correct

Name & Signature Dennis Plowman

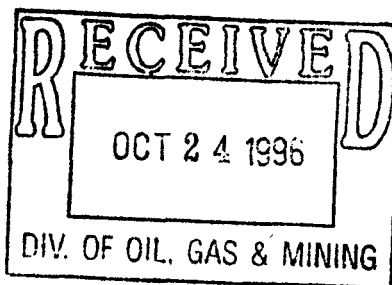
Dennis Plowman

Title Reservoir Technician Date 10/21/96

(Use Only)

J.P. Matthews

Petroleum Engineer



See Instructions on Reverse Side

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. Lease Designation and Serial Number

ML - 38666

7. Indian Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT for such proposals.

8. Unit or Communitization Agreement

UTC67921X

9. Well Name and Number

Utah D-3

10. API Well Number

43-007-30290

11. Field and Pool, or Wildcat

Drunkards Wash

Type of Well

☐ Oil Well ☐ Gas Well ☐ Other (specify) Disposal Well

Name of Operator

River Gas Corporation

Address of Operator

111 Energy Center Blvd. Northport, AL 35476

1. Telephone Number

(205) 759-3282

Location of Well

Footage : 1600' FSL & 1126' FWL

County : Carbon

Co. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E

State : UTAH

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- ☐ Abandonment ☐ New Construction
☐ Casing Repair ☐ Pull or Alter Casing
☐ Change of Plans ☐ Recompletion
☐ Conversion to Injection ☒ Shoot or Acidize
☐ Fracture Treat ☐ Vent or Flare
☐ Multiple Completion ☐ Water Shut-Off
☐ Other _____

Approximate Date Work Will Start: _____

SUBSEQUENT REPORT (Submit Original Form Only)

- ☐ Abandonment ☐ New Construction
☐ Casing Repair ☐ Pull or Alter Casing
☐ Change of Plans ☐ Shoot or Acidize
☐ Conversion to Injection ☐ Vent or Flare
☐ Fracture Treat ☐ Water Shut-Off
☐ Other _____

Date of Work Completion: _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

River Gas Corp. requests permission to acidize the D-3 Disposal Well to correct any gel damage that may exist as a result from prior stimulation work. The job will consist of 5000 gallons of 15% HCl, 2800 barrels of produced water, and 1400 perf balls. Pump rates should range between 20 to 25 bpm. A junk basket run will be made after the job to make sure all balls have unseated.

I hereby certify that the foregoing is true and correct

Signature Dennis Plowman

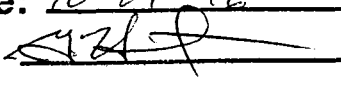
(Use Only)

Reservoir Technician Date 10/21/96

See Instructions on Reverse Side

Accepted by the State
of Utah Division of
Oil, Gas and Mining

Date: 10-24-96

By: 

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT— for such proposals.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other (specify) Disposal Well		6. Lease Designation and Serial Number ML - 38666
2. Name of Operator River Gas Corporation		7. Indian Allottee or Tribe Name
3. Address of Operator 511 Energy Center Blvd. Northport, AL 35476		8. Unit or Communitization Agreement UTU67921X
4. Location of Well Footage : 1600' FSL & 1126' FWL CO. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E		9. Well Name and Number Utah D-3
5. Telephone Number (205) 759-3282		10. API Well Number 43-007-30290
11. Field and Pool, or Wildcat Drunkards Wash		County : Carbon State : UTAH

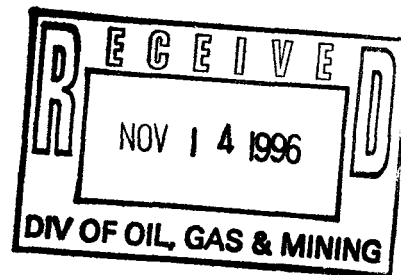
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
NOTICE OF INTENT (Submit in Duplicate)		SUBSEQUENT REPORT (Submit Original Form Only)	
<input type="checkbox"/> Abandonment	<input type="checkbox"/> New Construction	<input type="checkbox"/> Abandonment *	<input type="checkbox"/> New Construction
<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Pull or Alter Casing
<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Recompletion	<input type="checkbox"/> Change of Plans	<input type="checkbox"/> Shoot or Acidize
<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Shoot or Acidize	<input type="checkbox"/> Conversion to Injection	<input type="checkbox"/> Vent or Flare
<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Vent or Flare	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Multiple Completion	<input type="checkbox"/> Water Shut-Off	<input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Other INCREASE IN MAXIMUM INJECTION PRESSURE			
Approximate Date Work Will Start <u>When approved</u>		Date of Work Completion _____	
Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form. * Must be accompanied by a cement verification report.			

3. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please see the attached.

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 11-15-96
BY: [Signature]

1550psi



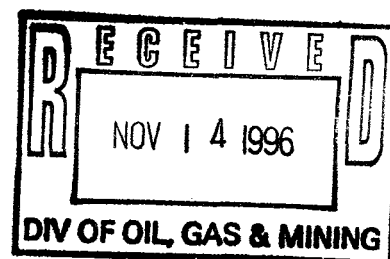
I hereby certify that the foregoing is true and correct

Name & Signature Dennis Plowman Title Reservoir Technician Date 11/12/96
(Date Use Only)

River Gas Corporation request that the surface injection pressure for the D-3 disposal well be increased from 1475 psi. to 1550 psi.. This pressure change would maximize the surface equipment capability and allow more water disposal.

To help justify our request, refer to the September 20, 1996 Stim-Lab report which analyzes the stress profile in the Drunkards Wash injection wells. In reference to the D-3 disposal well, the report summation was that the maximum injection pressure could be safely raised to 2500 psi.. This pressure would be contained by the shale barriers and the two anhydrite stringers from 5184'-5207' and 5270'-5304'. This containment was illustrated in the enclosed "Tracer Log" which was run after the post frac steprate test. You can see that upward fracture growth did not occur during this test even though a 28 bpm rate was realized. The pressures at this rate were approximately 1715 psi.. A rate versus pressure plot of the test also has been included for your reveiw.

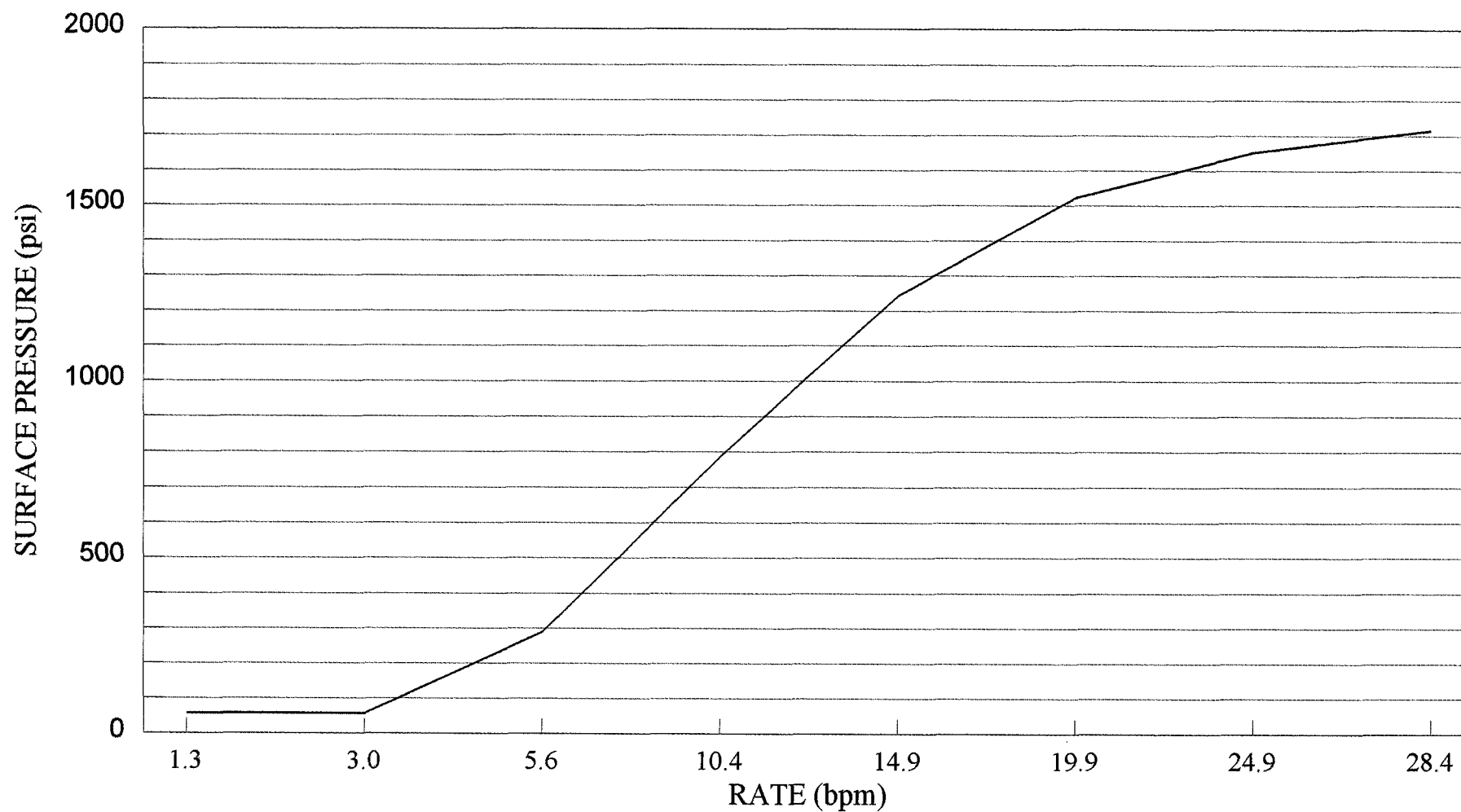
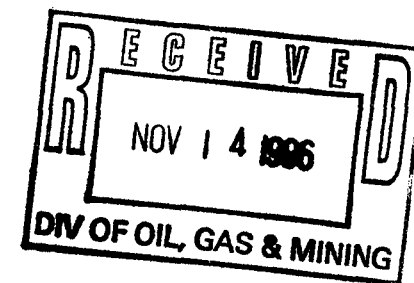
Please look over this information at your earliest convenience and let us know what you think. If you should need additional help, contact the Alabama office.



11/12/96

RIVER GAS CORPORATION

D-3 DISPOSAL WELL

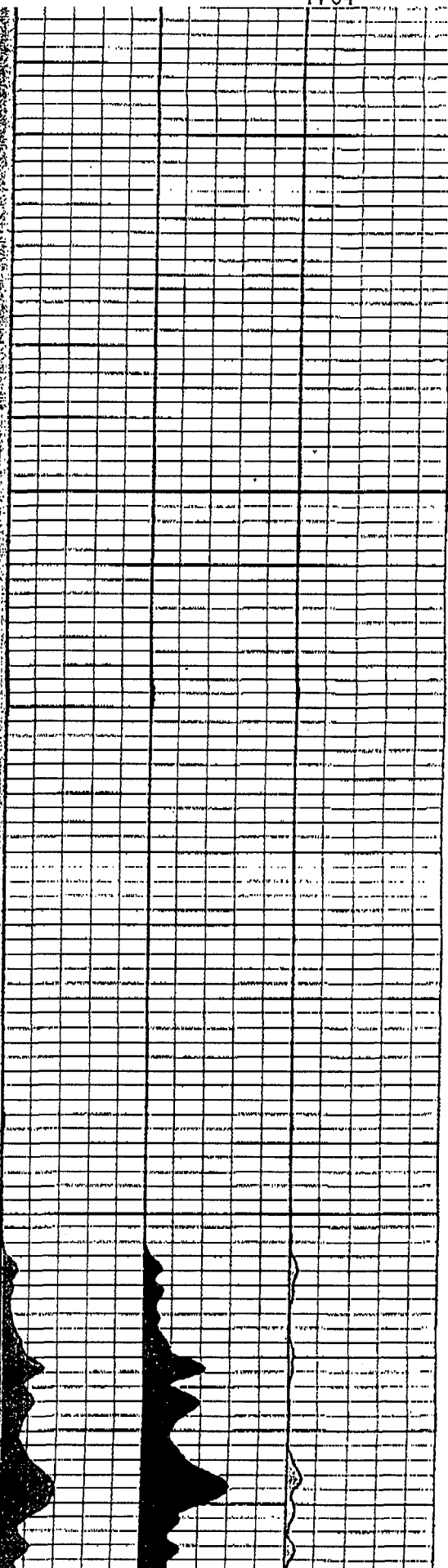
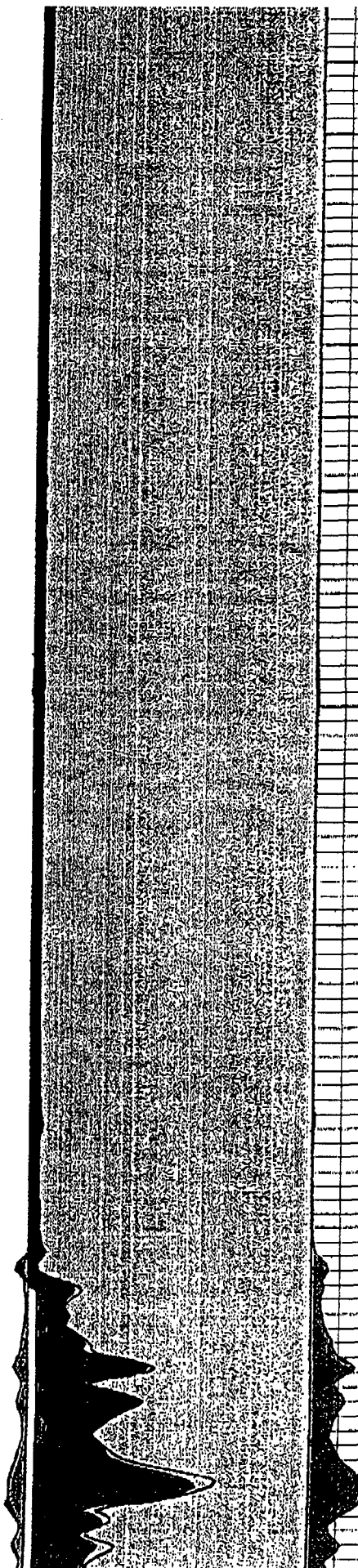
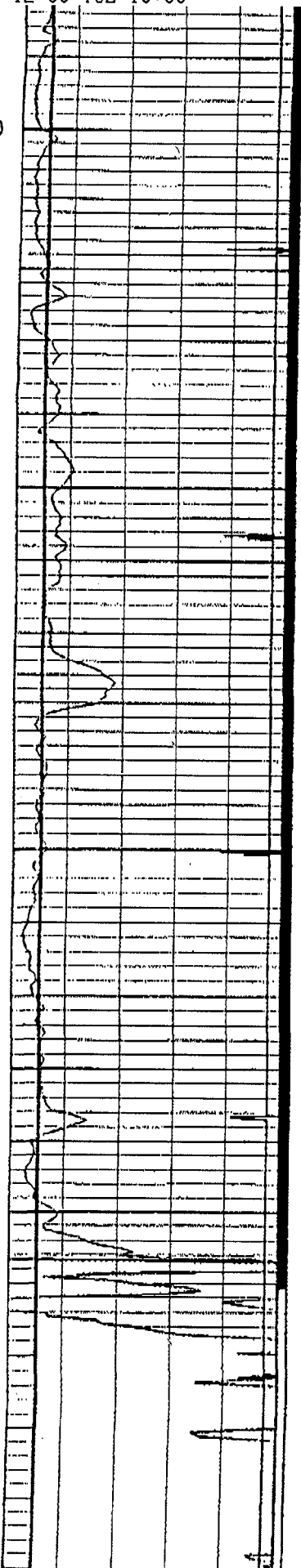


— PRESSURE

5400

5500

5600



STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Lease Designation and Serial Number

ML - 38666

7. Indian Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT— for such proposals.

8. Unit or Communitization Agreement

UTU67921X

1. Type of Well

☐ Oil Well
 ☐ Gas Well
 ☐ Other (specify) Disposal Well

9. Well Name and Number

Utah D-3

2. Name of Operator

River Gas Corporation

10. API Well Number

43-007-30290

3. Address of Operator

511 Energy Center Blvd. Northport, AL 35476

4. Telephone Number

(205) 759-3282

11. Field and Pool, or Wildcat

Drunkards Wash

5. Location of Well

Footage : 1600' FSL & 1126' FWL

County : Carbon

CO. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E

State : UTAH

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

NOTICE OF INTENT
(Submit in Duplicate)

- | | |
|--|---|
| <input type="checkbox"/> Abandonment | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recompletion |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

Approximate Date Work Will Start _____

SUBSEQUENT REPORT
(Submit Original Form Only)

- | | |
|--|--|
| <input type="checkbox"/> Abandonment * | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input checked="" type="checkbox"/> Shoot or Acidize |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |

Date of Work Completion November 5, 1996

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by a cement verification report.

3. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

On November 5, 1996, the D-3 disposal well was acidized with 5000 gallons of 15% HCL acid and 2678 barrels of produced fluid. 1400 ball sealers were used to divert the acid and fluid across the perforated intervals. The average rate and treating pressure during the job was 24 bpm and 2000 psi respectively. The ISIP was 1670 psi.

I hereby certify that the foregoing is true and correct.

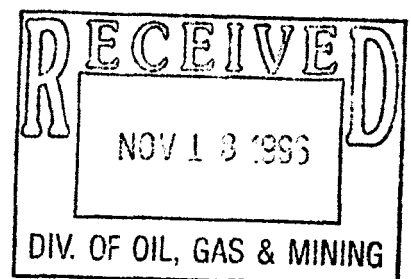
Name & Signature

Dennis Plowman

Dennis Plowman

Reservoir Technician Date 11/13/96

(Date Use Only)



Form 3

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

6. Designation and Serial Number

ML - 38666

7. Indian Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.

Use APPLICATION FOR PERMIT - Acids etc - possible

8. Unit or Communication Agreement

UTU67921X

9. Well Name and Number

Utah D-3

10. API Well Number

43-007-30290

1. Type of Well

☐ Oil Well☐ Gas Well☐ Other (specify) Disposal Well

2. Name of Operator

River Gas Corporation

3. Address of Operator

511 Energy Center Blvd. Northport, AL 35476

4. Telephone Number

(205) 759-3282

11. Field and Pool, or Wildcat

Drunkards Wash

5. Location of Well

Footage : 1600' FSL & 1126' FWL

Co. Sec. T., R., M. : NW/SW Sec 18, T15S, R10E

County : Carbon

State : UTAH

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE REPORT, OR OTHER DATA

NOTICE OF INTENT (Submit in Duplicate)

- ☐ Abandonment
☐ Casing Repair
☐ Change of Plans
☐ Conversion to Injection
☐ Fracture Treat
☐ Multiple Completion
☒ Other Request for Increase in Max. Injection Pressure

- ☐ New Construction
☐ Pull or Alter Casing
☐ Recompletion
☐ Shoot or Acidize
☐ Vent or Flare
☐ Water Shut-Off

Approximate Date Work Will Start As soon as approved

SUBSEQUENT REPORT (Submit Original Form Only)

- ☐ Abandonment
☐ Casing Repair
☐ Change of Plans
☐ Conversion to Injection
☐ Fracture Treat
☐ Other

- ☐ New Construction
☐ Pull or Alter Casing
☐ Shoot or Acidize
☐ Vent or Flare
☐ Water Shut-Off

Date of Work Completion _____

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

* Must be accompanied by statement verification report.

3. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

See Attached.

Post-it® Fax Note 7671

To	Gil Hunt	Date		# of pages	▶
From	Dennis Plowman				
Co./Dept.		Co.	RGC		
Phone #		Phone #			
Fax #		Fax #			

I hereby certify that the foregoing is true and correct.

Signature

Dennis Plowman

Reservoir Technician Date 11/19/96

(Use Only)

30)

See Instructions on Reverse Side

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING
DATE: 11-25-96
BY: [Signature]
1700#

River Gas Corporation request that the surface injection pressure for the D-3 disposal well be increased from 1550 psi. to 1700 psi.. This pressure change should allow an additional 1000 barrels per day of water disposal while not jeopardizing zone containment as stated below.

To help justify our request, refer to the September 20, 1996 Stim-Lab report which analyzes the stress profile in the Drunkards Wash injection wells. In reference to the D-3 disposal well, the report summation was that the maximum injection pressure could be safely raised to 2500 psi.. This pressure would be contained by the shale barriers and the two anhydrite stringers from 5184'-5207' and 5270'-5304'. This containment was illustrated by the Schlumberger "Tracer Log" on file with your office. This log was run after the post frac step-rate test, and you can see that upward fracture growth did not occur during this test even though a 28 bpm rate at 1710 psi. was realized. However, we feel our operating rate & pressure will be about 5.2 bpm at 1680 psi, respectively. A copy of the service company job report has been included for your review.

Also, six months from the day of the pressure increase, if approved, River Gas will run a tracer survey under normal operating rates and pressures. This operation should help insure that the injection fluids are being contained within the perforated intervals. After this first test, a follow-up tracer survey will be conducted on an annual basis.

Please look over this information at your earliest convenience and let us know what you think. If you should need additional help, contact the Alabama office.

JUN-12-96 WED 12:35
WELL TREATMENT REPORT

DS VERNAL UTAH

FAX NO. 801 7890138

P. 02

DS-481-C PRINTED IN USA.

DOWELL SCHLUMBERGER INCORPORATED

WELL NAME AND NUMBER SND - # D-3		LOCATION (LEGAL) SEC. 18 T. 15S R. 10E		OS LOCATION Vernal UTAH		DATE 5-31-96																													
FOOTFIELD Drum and Wash		FORMATION NALASO		AGE OF WELL NEW <input checked="" type="checkbox"/> REWORK <input type="checkbox"/>		TREATMENT NUMBER 15-67-0327																													
COUNTY/TOWNSHIP C. Alkan		STATE UTAH		ALLOWABLE PRESSURE TBO: 1820 CSO: 1820		TYPE OF WELL OIL <input type="checkbox"/> GAS <input type="checkbox"/> WATER <input type="checkbox"/> INJ. <input checked="" type="checkbox"/>																													
TYPE OF SERVICE <input type="checkbox"/> MATRIX TREATMENT <input type="checkbox"/> SAND CONTROL <input checked="" type="checkbox"/> FRACTURING <input checked="" type="checkbox"/> OTHER		PRIMARY TREATING FLUID 1% KEL		CASING SIZE WT DEPTH 7" 23 6150		PERFORATED INTERVALS																													
OPERATOR NAME River Gas				TUBING SIZE WT DEPTH		<table border="1"> <tr><td>TOP</td><td>TO</td><td>BOTTOM</td><td>NO. OF ROGS</td></tr> <tr><td>6051</td><td>TO</td><td>6055</td><td></td></tr> <tr><td>5561</td><td>TO</td><td>6055</td><td></td></tr> <tr><td></td><td>TO</td><td></td><td></td></tr> <tr><td></td><td>TO</td><td></td><td></td></tr> <tr><td></td><td>TO</td><td></td><td></td></tr> <tr><td></td><td>TO</td><td></td><td></td></tr> </table>		TOP	TO	BOTTOM	NO. OF ROGS	6051	TO	6055		5561	TO	6055			TO				TO				TO				TO		
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5561	TO	6055																																	
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	TO																																		
	TO																																		
SERVICE INSTRUCTIONS PUMP 1% KEL WATER FOR STEP INJECTION TEST				PACKER TYPE DEPTH		PERF. DIAMETER IN.																													
				TUBING VOLUME ANNULAR VOL		PERFORATED INTERVAL TOTAL FT.																													
				OPEN HOLE CASING VOL. 238																															
				DISPLACEMENT 238 C. TBO. <input type="checkbox"/> TUBING <input type="checkbox"/>		<table border="1"> <tr><td>IS DONE DOWN</td><td>CASING</td><td>ANNULUS</td><td>BOTH</td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>		IS DONE DOWN	CASING	ANNULUS	BOTH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																				
IS DONE DOWN	CASING	ANNULUS	BOTH																																
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
FOR CONVERSION PURPOSES 24 BBLs EQUALS 1000 GALLONS																																			
ARRIVED ON LOCATION: 10:00		LEFT LOCATION: 12:00																																	

TIME MM:SS	INJECTION RECORD								PRESSURE		NOTATIONS
	TYPE OF FLUID	RATE BPM	OS. WT. GPM	INCREASING VOL. BBLs	ELM. VOL. TOL.	PROP. TYPE	WELL ID	WELL ID	Csg.	TBO	
0800											Pre-Job Safety Meeting
0805											Pressure set to 4000 psi
12:00											Arrive at site. KEL in
16:00											Done with 06 back by morning
18:00											Arrive at site. KEL in
19:00											Tool bit having trouble setting it in on cracks. Comp. R. period. Down to 1000 psi. Tool bit under test. Arrive at site to set tool.
0813	1% kel	5.1							60		Start Pumping
0820	"	5.1							120		Caught psi. High Flow
0834	"	5.1			100				210		Rate: psi. 100 gpm
0843	"	5.2							260		Increase Rate + psi.
0844	"	10.3			150				380		Increase Rate
0853	"	10.3			250				540		Rate: psi.
0858	"	10.4			300				640		Rate: psi.
0903	"	10.4			350				640		Rate: psi.
0908	"	10.4			400				730		Rate: psi.
0913	"	10.4			450				760		Rate: psi.
0914	"	15			460				900		Increase Rate
0916	"	15			500				940		Rate + psi.
0919	"	15			550				1020		Rate + psi.

FLUID 14	NITROGEN	8PM AVERAGE INJECTION RATES CARBON DIOXIDE	TOTAL W/PROP	WATER/ACID 2507 BBLs	OIL BBLs	VOLUME FLUID INJECTED ROGEN	CARBON DIOXIDE TONS
MAXIMUM 1710	FINAL 1710	TREATING PRESSURE SUMMARY AVERAGE 1500	IMMED. S.D.P. 1550	15 MIN S.D.P.	TOTAL INJECTED BBLs	QUANTITY PROPPANT TONS	PLACED AL ORDERED/DISIGNED LBS
PRODUCTION PRIOR TO THIS TREATMENT				<input type="checkbox"/> Test <input checked="" type="checkbox"/> Stabilized			
CUSTOMER REPRESENTATIVE BITCH MITCHELL		DS SERVICE SUPERVISOR Robert E. Fwy		FRACTURE GRADIENT		PAID VOLUME GALS @ PAD PAGES 1 OF 3	

JUN-12-96 WED 12:38

DS VERNAL UTAH

FAX NO. 801 7890138

P. 03

WELL TREATMENT REPORT
SUPPLEMENTAL LOG

DOWELL SCHLUMBERGER INCORPORATED

CUSTOMER WELL NAME AND NUMBER

LOCATION (LEGAL)

POOL/FIELD

DATE

TREATMENT NUMBER

PAGE

OF 3 PAGES

NOTATIONS

SWD - # D-3

SEC 18 T 15 S R 10 E

Drunkards Wash

PRESSURE

TIME	TYPE OF FLUID	RATE GPM	INJECTION RECORD	PROF. TYPE	PROF. TYPE	PROF. TYPE	PROF. TYPE	PROF. TYPE	PROF. TYPE	PROF. TYPE
09:23	1% KEL	15	—	—	600	—	—	1060	—	Rate + 1.5
09:26	"	15	—	—	650	—	—	1100	—	Rate + 1.5
09:29	"	15	—	—	700	—	—	1120	—	Rate + 1.5
09:33	"	15	—	—	750	—	—	1150	—	Rate + 1.5
09:36	"	15	—	—	800	—	—	1180	—	Rate + 1.5
09:40	"	15	—	—	850	—	—	1200	—	Rate + 1.5
09:43	"	15	—	—	900	—	—	1230	—	Rate + 1.5
09:45	"	20	—	—	900	—	—	1330	—	Increase Rate
09:46	"	20	—	—	950	—	—	1350	—	Rate + 1.5
09:48	"	20	—	—	1000	—	—	1410	—	Rate + 1.5
09:51	"	20	—	—	1050	—	—	1440	—	Rate + 1.5
09:53	"	20	—	—	1100	—	—	1460	—	Rate + 1.5
09:56	"	20	—	—	1150	—	—	1500	—	Rate + 1.5
09:59	"	20	—	—	1200	—	—	1500	—	Rate + 1.5
10:01	"	20	—	—	1250	—	—	1510	—	" "
10:03	"	20	—	—	1300	—	—	1520	—	" "
10:06	"	20	—	—	1350	—	—	1520	—	" "
10:08	"	20	—	—	1400	—	—	1520	—	" "
10:11	"	20	—	—	1450	—	—	1520	—	" "
10:13	"	20	—	—	1500	—	—	1510	—	" "
10:16	"	20	—	—	1550	—	—	1510	—	" "
10:18	"	25	—	—	1600	—	—	1580	—	Increase Rate
10:20	"	24.7	—	—	1650	—	—	1600	—	Rate + 1.5
10:22	"	24.9	—	—	1700	—	—	1620	—	" "
10:24	"	24.9	—	—	1750	—	—	1630	—	" "
10:26	"	24.9	—	—	1800	—	—	1630	—	" "
10:28	"	25	—	—	1850	—	—	1630	—	" "
10:30	"	25	—	—	1900	—	—	1630	—	" "
10:32	"	25	—	—	1950	—	—	1630	—	" "
10:34	"	25	—	—	2000	—	—	1640	—	" "
10:37	"	28	—	—	2050	—	—	1680	—	Thomas - Rate
10:38	"	28	—	—	2100	—	—	1700	—	Rate + 1.5
10:40	"	28.4	—	—	2150	—	—	1710	—	" "
10:42	"	28.4	—	—	2200	—	—	1710	—	" "
10:44	"	28.4	—	—	2250	—	—	1710	—	" "
10:45	"	28.4	—	—	2360	—	—	1710	—	" "

JUN-12-98 WED 12:38

DS VERNAL UTAH

FAX NO. 801 7890138

P. 04

CELL TREATMENT REPORT
SUPPLEMENTAL LOG
3-324-1-A PRINTED IN U.S.A.

DOWELL SCHLUMBERGER INCORPORATED

CUSTOMER WELL NAME AND NUMBER

LOCATION (LEGAL)

ପ୍ରତିଷ୍ଠାପତି

DATE _____

6-2-86

TREATMENT NUMBER 072-

PAGE 3 OF 3 PAGES

NOTATIONS

SWP - 0-3

sec 18 T15S R10E

Drinking water

[illegible]

FIELD REPORT

Schlumberger

TYPE OF SERVICE
BUILDUP-FALLOFF

DATE
11-JUN-1996

DISTRICT
VIRNAL

SERVICE ORDER NUMBER: 142623

WELL OWNER: RIVER GAO

REPORTS ADDRESS:

FIELD:

LEASE:

WELL NAME & NO.:

COUNTY: CARSON

STATE: UTAH

LOCATION:

TEST INTERVAL FROM FT TO FT = 0 FT

TEST NO. ONE

SURFACE DATA

EQUIPMENT SEQUENCE

DESCRIPTION	DATE	TIME OF DAY	PRESSURE	COMPONENTS	OD	ID	LENGTH	DEPTH
START PUMPING-RATE 9.1	02-JUN	08:13						
STEP UP RATE-10.3		08:44						
STEP UP RATE-15		09:14						
STEP UP RATE-20		09:45						
STEP UP RATE-25		10:16						
STEP UP RATE-28		10:37						
SHOT IN		10:53						

WELL BORE DATA

FORMATION TESTED	
NET PRODUCTIVE INTERVAL	ft BOT. POROSITY
SLAVATION	ft DEPTH MEASURED FROM KB
TOTAL MEASURED DEPTH	ft
O H SIZE	in
CASING SIZE	7
LINER SIZE	
PERF INTERVAL FROM	ft TO ft
SHOT DENSITY	

INSTRUMENT DATA

INSTRUMENT NO.	9245
CAPACITY (PSIG)	20000
DEPTH	5077
INSIDE-OUTSIDE	OUT
CLOCK GAT	ELECTRONIC
TEMPERATURE °F	171

REMARKS:

SERVICE ORDER NUMBER:

142623

SCHLUMBERGER ENGINEER/TECHNICIAN

MIKE MCCURDY

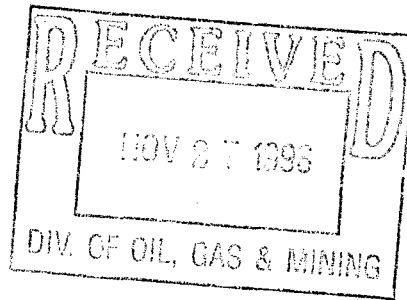


RIVER GAS CORPORATION

511 Energy Center Blvd.
Northport, Alabama 35476
Phone (205) 759-3282
Fax (205) 759-3188 (Accounting)
Fax (205) 758-5309 (Corporate)

November 22, 1996

Vickey Dyson
Production Group Supervisor
State of Utah
Division of Oil, Gas and Mining
1594 West North Temple
Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801



Ms. Dyson:

Included are copies of logs that were ran on the Utah D-3 well.
Our Price Office said that you had requested them. Please let me
know if there is anything else that you need.

Thanks,

Dennis Plowman
Reservoir Technician

43 007 30290
WDW
155 10E 18

INJECTION WELL - INSPECTION RECORD

Well Name: <u>D-3</u>	API Number: <u>43-007-30290</u>
Qtr/Qtr: <u>NW/SW</u>	Section: <u>18</u> Township: <u>15S</u> Range: <u>10E</u>
Company Name: <u>River Gas Corporation</u>	
Lease: State <u> </u>	Fee <u> </u> Federal <u> </u> Indian <u> </u>
Inspector: <u>Dennis L. Ingram</u>	Date: <u>04/06/00</u>

Injection Type:

Disposal: WDW Enhanced Recovery: Other: Injecting: Yes Shut-In: Rate: 4678.0 (bpd) Totalizer: 350683 (bbls)Gauges: Tubing: YesCasing: No Casing Pressure: (psig)Tubing Pressure: 1701 (psig) Housekeeping: Good, is cleanEquipment Condition: Good.

COMMENTS: Barton recorder with chart is inking. Lined evaporation pit with 3 to 4'
freeboard. Cellar is full of water around wellhead. Spoke to Billy Vigor 820-8205 and
ask him to check for leak in api ring on wellhead. He claims its rainwater?

DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL ☐ GAS ☒ OTHER:

2. Name of Operator:

River Gas Corporation

3. Address and
Telephone Number:

6825 S. 5300 W. P.O. Box 851 Price, Utah 84501 (435) 613-9777

4. Location of Well
Footages:

QQ, Sec., T., R., M.:

SLB & M

5. Lease Designation and Serial Number:

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

8. Well Name and Number:

9. API Well Number:

10. Field or Pool, or Wildcat:

County: Carbon County

State: Utah

11. **CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA****NOTICE OF INTENT**
(Submit in Duplicate)

- | | |
|---|---|
| <input type="checkbox"/> Abandon | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Repair Casing | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Recomplete |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Reperforate |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Multiple Completion | <input type="checkbox"/> Water Shut-Off |
| <input checked="" type="checkbox"/> Other <u>Change of Operator</u> | |
| Approximate date work will start _____ | |

SUBSEQUENT REPORT
(Submit Original Form Only)

- | | |
|--|---|
| <input type="checkbox"/> Abandon * | <input type="checkbox"/> New Construction |
| <input type="checkbox"/> Repair Casing | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Reperforate |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Vent or Flare |
| <input type="checkbox"/> Fracture Treat or Acidize | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Other _____ | |
| Date of work completion _____ | |

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form.

* Must be accompanied by a cement verification report.

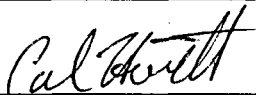
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Please be advised that River Gas Corporation is transferring ownership of the attached list of wells to Phillips Petroleum Company 9780 Mt. Pyramid Court, Englewood, CO 80112.

Please direct all correspondence and reports to: Phillips Petroleum Company P.O. Box 3368, Englewood, CO 80155-3368.

Effective 1/1/01.

13.

Name & Signature: Cal HurttTitle: Development ManagerDate: 12/19/00

(This space for state use only)

RGC/Phillips Merger

List of Affected BLM Leases and Rights-of-Way

A. Oil & Gas Leases

UTU-47157	UTU-70219	UTU-75016
UTU-49631	UTU-70400	UTU-75019
UTU-50645	UTU-71390	UTU-75021
UTU-51584	UTU-72003	UTU-75022
UTU-53872	UTU-72004	UTU-76332
UTU-57821	UTU-72350	UTU-76334
UTU-60402	UTU-72355	UTU-77351
UTU-60925	UTU-72358	UTU-77353
UTU-61154	UTU-72377	UTU-77354
UTU-61155	UTU-72470	UTU-78408
UTU-61158	UTU-72477	UTU-78409
UTU-61547	UTU-72624	UTU-78410
UTU-61548	UTU-72723	UTU-78411
UTU-62145	UTU-72724	UTU-78412
UTU-62276	UTU-72746	UTU-78413
UTU-65298	UTU-73004	UTU-78782
UTU-65300	UTU-73075	UTU-78783
UTU-65302	UTU-73330	UTU-79150
UTU-65303	UTU-73331	UTU-79151
UTU-67621	UTU-73523	UTU-79152
UTU-67839	UTU-73752	UTU-79153
UTU-67906	UTU-73884	UTU-79154
UTU-68314	UTU-74376	UTU-79155
UTU-69449	UTU-75015	UTU-79159

B. Rights-of-Way

UTU-73226	UTU-77141	UTU-77976
UTU-74319	UTU-77141-01	UTU-77989
UTU-74320	UTU-77151	UTU-77989-01
UTU-76610	UTU-77151-01	
UTU-76629	UTU-77154	

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number <u>See Attached</u>	API Number
Location of Well Footage : _____ County : _____ QQ, Section, Township, Range: _____ State : UTAH	Field or Unit Name Lease Designation and Number

EFFECTIVE DATE OF TRANSFER: 1/1/01

CURRENT OPERATOR

Company: River Gas Corporation Name: Cal Hurtt
Address: 1300 McFarland Blvd. NE, Suite 300 Signature: Cal Hurtt
city Tuscaloosa state AL zip 35406 Title: Development Supervisor
Phone: (205) 759-3282 Date: 12/19/00
Comments: Change in operatorship due to merger of River Gas Corporation into Phillips Petroleum Company effective 12/31/00 at 11:59 p.m.

NEW OPERATOR

Company: Phillips Petroleum Company Name: X Billy Stacy
Address: 9780 Mt. Pyramid Court Signature: Billy Stacy
city Englewood state CO zip 80112 Title: Asset Manager
Phone: (720) 344-4984 Date: 2-6-01
Comments: Please send all reports and correspondence to:
Phillips Petroleum Company
P.O. Box 3368
Englewood, CO 80155-3368

(This space for State use only)

Transfer approved by: [Signature]
Title: Field Services Manager

Approval Date: 2-21-01

Comments:

Disposal Wells to be transferred from RGC to Phillips Petroleum Company

Well #	API #	Location	Section	Township	Range
American Quasar D1	4300730040	999FSL, 1552 FWL	31	14S	10E
Arcadia-Telonis D2	4300730093	465 FSL, 560 FEL	19	14S	09E
Utah D3	4300730290	1600 FSL, 1530 FEL	18	15S	10E
Utah D4	4300730314	600 FNL, 500 FWL	24	14S	09E
Fausett D5	4300730351	467 FNL, 1461 FWL	16	14S	09E
Drew D6	4300730100	1300 FSL, 830 FWL	34	14S	09E
Utah D7	4301530338	1371 FSL, 1530 FEL	2	14S	09E
Utah D8	4300730431	1342 FNL, 350 FWL	12	15S	09E
Utah D9	4300730438	1960 FNL, 1487 FWL	32	14S	09E
RGC D10	4300730520	162 FNL, 1557 FEL	28	15S	09E
USA D11	4301530356	1513 FNL, 2437 FEL	13	16S	09E
Sampinos D14	4300730567	1695 FSL, 2133 FEL	16	15S	10E

THOMAS W. BACHTELL
A. JOHN DAVIS, III
JOHN W. ANDERSON
FREDERICK M. MACDONALD
GEORGE S. YOUNG
ANGELA L. FRANKLIN
JOHN S. FLITTON
MICHAEL S. JOHNSON
WILLIAM E. WARD

LAW OFFICES
PRUITT, GUSHEE & BACHTELL
SUITE 1850 BENEFICIAL LIFE TOWER
SALT LAKE CITY, UTAH 84111-1495
(801) 531-8446
TELECOPIER (801) 531-8468
E-MAIL: mail@pgblaw.com

SENIOR COUNSEL:
ROBERT G. PRUITT, JR.
OLIVER W. GUSHEE, JR.

OF COUNSEL:
ROBERT G. PRUITT, III
BRENT A. BOHMAN

January 29, 2001

HAND DELIVERED

Mr. Jim Thompson
Utah Division of Oil, Gas & Mining
1594 W. North Temple
Salt Lake City, UT 84116

Re: River Gas/Phillips Merger

Dear Mr. Thompson:

As you may know, River Gas Corporation ("RGC") merged into Phillips Petroleum Company ("Phillips") effective December 31, 2000 at 11:59 p.m. I have enclosed a Certificate of Articles of Merger issued by the Utah Department of Commerce and, although duplicative, a sundry notice formally evidencing the merger for your records, and a list of all wells, including injection wells, formerly operated by RGC.

Please change the Division's records to reflect the change in operator of these wells from RGC to Phillips. All operational questions should be directed to Phillips at the following address:

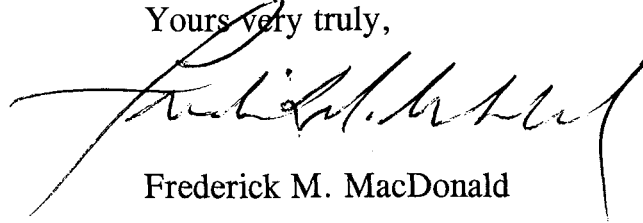
Phillips Petroleum Company
Attn: Billy Stacy, Operations Manager
P.O. Box 3368
Englewood, CO 80155-3368
Telephone No.: (720) 344-4984

Phillips currently has a bond on file with the Division (a copy of which is enclosed for your reference), but I understand an \$80,000 Letter of Credit is in the process of being substituted.

Mr. Jim Thompson
January 29, 2001
Page 2

On behalf of Phillips, I thank you for your cooperation. Should you have any further questions or concerns, please do not hesitate to contact me.

Yours very truly,

A handwritten signature in dark ink, appearing to read 'Frederick M. MacDonald', with a long, sweeping horizontal stroke extending to the left.

Frederick M. MacDonald

FMM:cs
2078.16
Enclosures
cc: W. H. Rainbolt
Billy Stacy



Utah Department of Commerce
Division of Corporations & Commercial Code
160 East 300 South, 2nd Floor, Box 146705
Salt Lake City, UT 84114-6705
Phone: (801) 530-4849
Toll Free: (877) 526-3994 Utah Residents
Fax: (801) 530-6438
Web site: <http://www.commerce.state.ut.us>

Registration Number: 562960-0143

01/12/01

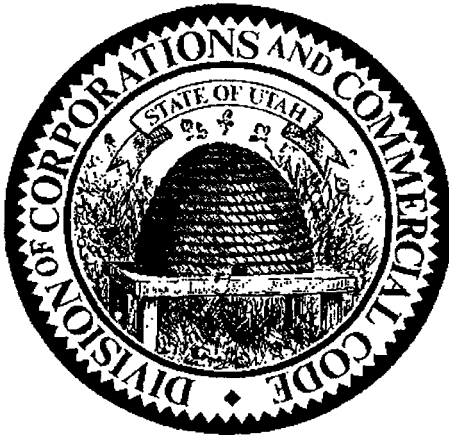
Business Name: PHILLIPS PETROLEUM COMPANY

Registered Date: JUNE 14, 1946

CERTIFICATE OF ARTICLES OF MERGER

THE UTAH DIVISION OF CORPORATIONS AND COMMERCIAL CODE ("DIVISION") HEREBY CERTIFIES THAT

ARTICLES OF MERGER WERE FILED WITH THIS OFFICE ON DECEMBER 12, 2000 MERGING RIVER GAS CORPORATION, A CORPORATION OF THE STATE OF ALABAMA, INTO PHILLIPS PETROLEUM COMPANY, THE SURVIVING CORPORATION WHICH IS OF THE STATE OF DELAWARE, AS APPEARS OF RECORD IN THE OFFICE OF THE DIVISION.



Ric Campbell
Acting Division Director of
Corporations and Commercial Code

Dept. of Professional Licensing
(801)530-6628

Real Estate
(801)530-6747

Public Utilities
(801)530-6651

Securities
(801)530-6600

Consumer Protection
(801)530-6601

State of Delaware
Office of the Secretary of State

PAGE 1

12/13/2000
Date:
Receipt Number: 188532
Amount Paid: \$145.00

ts

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF
DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT
COPY OF THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"RIVER GAS CORPORATION", A ALABAMA CORPORATION,
WITH AND INTO "PHILLIPS PETROLEUM COMPANY" UNDER THE NAME OF
"PHILLIPS PETROLEUM COMPANY", A CORPORATION ORGANIZED AND
EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED
AND FILED IN THIS OFFICE THE SIXTH DAY OF DECEMBER, A.D. 2000,
AT 10 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF
THE AFORESAID CERTIFICATE OF OWNERSHIP IS THE THIRTY-FIRST DAY
OF DECEMBER, A.D. 2000, AT 11:59 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE
NEW CASTLE COUNTY RECORDER OF DEEDS.

12-12-00P04:02 RCVD

TAP
FILED

DEC 12 2000

Utah Div. Of Corp. & Comm. Code

State of Utah
Department of Commerce
Division of Corporations and Commercial Code
I hereby certify that the foregoing has been filed
and approved on this 12 day of Dec 20 2000
in the office of this Division and hereby issue
this Certificate thereof.

Examiner

Date



RIC CAMPBELL
ACTING DIRECTOR



Edward J. Freel, Secretary of State

AUTHENTICATION: 0837738

0064324 8100M

001609453

DATE: 12-07-00

CERTIFICATE OF OWNERSHIP AND MERGER

OF

RIVER GAS CORPORATION

(an Alabama corporation)

into

Phillips Petroleum Company

(a Delaware corporation)

It is hereby certified that:

1. Phillips Petroleum Company [hereinafter sometimes referred to as the "Corporation"] is a business corporation of the State of Delaware.

2. The Corporation is the owner of all of the outstanding shares of each class of stock of River Gas Corporation, which is a business corporation of the State of Alabama.

3. The laws of the jurisdiction of organization of River Gas Corporation permit the merger of a business corporation of that jurisdiction with a business corporation of another jurisdiction.

4. The Corporation hereby merges River Gas Corporation into the Corporation.

5. The following is a copy of the resolutions adopted on November 21, 2000 by the Board of Directors of the Corporation to merge the said River Gas Corporation into the Corporation:

"1. Phillips Petroleum Company, which is a business corporation of the State of Delaware and is the owner of all of the outstanding shares of River Gas Corporation, which is a business corporation of the State of Alabama, hereby merges River Gas Corporation into Phillips Petroleum Company pursuant to the provisions of the Alabama Business Corporation Act and pursuant to the

12-12-00P04:02 RCVD

provisions of Section 253 of the General Corporation Law of Delaware.

"2. The separate existence of River Gas Corporation shall cease at the effective time and date of the merger pursuant to the provisions of the Alabama Business Corporation Act; and Phillips Petroleum Company shall continue its existence as the surviving corporation pursuant to the provisions of Section 253 of the General Corporation Law of Delaware.

"3. The Articles of Incorporation of Phillips Petroleum Company are not amended in any respect by this Plan of Merger.

"4. The issued shares of River Gas Corporation shall not be converted or exchanged in any manner, but each said share which is issued immediately prior to the effective time and date of the merger shall be surrendered and extinguished.

"5. Each share of Phillips Petroleum Company outstanding immediately prior to the effective time and date of the merger is to be an identical outstanding share of Phillips Petroleum Company at the effective time and date of the merger.

"6. No shares of Phillips Petroleum Company and no shares, securities, or obligations convertible into such shares are to be issued or delivered under this Plan of Merger.

"7. The Board of Directors and the proper officers of Phillips Petroleum Company are hereby authorized, empowered, and directed to do any and all acts and things, and to make, execute, deliver, file, and/or record any and all instruments, papers, and documents which shall be or become necessary, proper, or convenient to carry out or put into effect any of the provisions of this Plan of Merger or of the merger herein provided for. "

" This Company approves that the effective time and date of the merger herein provided for in the State of Alabama shall be 11:59 p.m. on December 31, 2000."

"Any Vice President, the Treasurer, any Assistant Treasurer, the Secretary, any Assistant Secretary, and each of them severally, be and hereby is authorized to make, execute,

deliver, file, and/or record any and all instruments, papers, and documents which shall be or become necessary, proper, or convenient to carry out or put into effect any of the provisions of these resolutions and to do or cause to be done all such acts as are necessary to give effect to the purpose and intent of the approval herein set forth."

6. This Certificate of Ownership and Merger shall be effective at 11:59 p.m. on December 31, 2000.

Executed on November 27, 2000

Phillips Petroleum Company

N. A. Loftis
N. A. Loftis, Assistant Secretary



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

In Reply Refer To:
3106
UTU-47157 et al
(UT-932)

JAN 30 2001

NOTICE

Phillips Petroleum Company : Oil and Gas
Attn: W. H. Rainbolt, Rocky Mtn. Region-Land :
Box 1967 :
Houston, TX 77251-1967 :

Merger Recognized

Acceptable evidence has been filed in this office concerning the merger of River Gas Corporation into Phillips Petroleum Company with Phillips Petroleum Company being the surviving entity.

The oil and gas lease files and rights-of-way files identified on the enclosed exhibit have been noted as to the merger. The exhibit is the list supplied by the representative of the companies, and verified by our computerized records. We have not adjudicated the case files to determine if the entity affected by the merger holds an interest in the leases identified, nor have we attempted to identify leases where the entity is the operator on the ground, maintaining no vested record title or operating rights interest. We are notifying the Minerals Management Service and all applicable BLM offices of the merger by a copy of this notice. If additional documentation for a change of operator is required by our Field Offices, you will be contacted by them.

By recognition of the merger the obligor is automatically changed by operation of law from River Gas Corporation to Phillips Petroleum Company on Letter of Credit No. P-207337 (BLM Bond No. UT0829). A rider to BLM Bond No. ES0048 assuming any and all liabilities of BLM Bond No. UT0829 must be submitted for approval to the Eastern States Office, Attn: Bill Forbes, 7450 Boston Boulevard, Springfield, VA 22153. After the rider is approved, the Letter of Credit will be returned to the financial institution that issued it.

ROBERT LOPEZ

Robert Lopez
Chief, Branch of
Minerals Adjudication

Enclosure
Exhibit of Leases

RECEIVED

FEB 02 2001

DIVISION OF
OIL, GAS AND MINING

cc: Moab Field Office
Vernal Field Office
Price Field Office
MMS—Reference Data Branch, MS 3130, P.O. Box 5860, Denver, CO 80217
State of Utah, DOGM, Attn: Jim Thompson (Ste. 1210), Box 145801, SLC, UT 84114
The Chase Manhattan Bank, Attn: Standby Letter of Credit Dept., 4 Chase Metrotech Center, 8th Floor
Brooklyn, NY 11245
Teresa Thompson (UT-931)
LaVerne Steah (UT-942)
Pruitt, Gushee & Bachtell, Attn: Frederick M. MacDonald, Suite 1850 Beneficial Life Tower,
Salt Lake City, Utah 84111-1495
BLM, Eastern States Office (Attn: Bill Forbes)

OPERATOR CHANGE WORKSHEET**ROUTING**

1. GLH ✓	4-KAS ✓
2. CDW	5-SS ✓
3. JLT	6-FILE

Enter date after each listed item is completed

Change of Operator (Well Sold)

Designation of Agent

Operator Name Change (Only)

X MergerThe operator of the well(s) listed below has changed, effective: **12-31-2000**

FROM: (Old Operator):
RIVER GAS CORPORATION
Address: 6825 S. 5300 W. P. O. BOX 851
PRICE, UT 84501
Phone: 1-(435)-613-9777
Account N1605

TO: (New Operator):
PHILLIPS PETROLEUM COMPANY
Address: P. O. BOX 3368
ENGLEWOOD, CO 80155-3368
Phone: 1-(720)-344-4984
Account N1475

CA No.**Unit: DRUNKARDS WASH****WELL(S)**

NAME	API NO.	ENTITY NO.	SEC. TWN RNG	LEASE TYPE	WELL TYPE	WELL STATUS
FAUSETT D5	43-007-30351	12165	16-14S-09E	Fee	SWD	A
ARCADIA-TELONIS 1 (D-2)	43-007-30093	99990	19-14S-09E	Fee	SWD	A
UTAH D-4	43-007-30314	11256	24-14S-09E	State	SWD	A
UTAH M-1	43-007-30199	11256	26-14S-09E	State	SWD	A
UTAH D-9	43-007-30438	12771	32-14S-09E	State	SWD	A
USA D6	43-007-30100	12466	34-14S-09E	Federal	SWD	A
DRUNKARDS WASH 31-1 (D-1)	43-007-30040	11256	31-14S-10E	State	SWD	A
UTAH D8	43-007-30431	11256	12-15S-09E	State	SWD	A
RGC D-10	43-007-30520	12545	28-15S-09E	Fee	SWD	A
UTAH M-2	43-007-30066	2889	34-15S-09E	Federal	TW	A
SAMPINOS D-14	43-007-30567	12729	16-15S-10E	Fee	SWD	A
UTAH D-3	43-007-30290	11256	18-15S-10E	State	SWD	A
UTAH D7	43-015-30338	12404	02-16S-09E	State	SWD	A
D-11	43-015-30356	12572	13-16S-09E	Federal	SWD	A

OPERATOR CHANGES DOCUMENTATION

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 01/29/2001
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 01/29/2001
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 02/15/2001

4. Is the new operator registered in the State of Utah: YES Business Number: 562960-0143
5. If **NO**, the operator was contacted on: _____
6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the (merger, name change, or operator change for all wells listed on Federal or Indian leases on: 01/30/2001
7. **Federal and Indian Units:** The BLM or BIA has approved the successor of unit operator for wells listed on: N/A
8. **Federal and Indian Communization Agreements ("CA"):** The BLM or the BIA has approved the operator change for all wells listed involved in a CA on: N/A
9. **Underground Injection Control ("UIC") Pro:** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 02/22/2001

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 02/20/2001
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 02/20/2001
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE BOND VERIFICATION:

1. State well(s) covered by Bond No.: 5952189

FEE WELLS - BOND VERIFICATION/LEASE INTEREST OWNER NOTIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed has furnished a bond: P-207328
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A
3. (R649-2-10) The **FORMER** operator of the Fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

FILMING:

1. All attachments to this form have been **MICROFILMED** on: 2.22.01

FILING:

1. **ORIGINALS/COPIES** of all attachments pertaining to each individual well have been filled in each well file on: _____

COMMENTS:

STATE OF UTAH
DIVISION OF OIL GAS AND MINING

INJECTION WELL - PRESSURE TEST

Well Name: <u>Utah D-3 D-3</u>	API Number: <u>43-007-30290</u>
Qtr/Qtr: _____	Section: _____
Company Name: <u>Phillips</u>	Township: _____ Range: _____
Lease: State <u>X</u> Fee _____	Federal _____ Indian _____
Inspector: <u>Mark Jones</u>	Date: <u>8/7/02</u>

Initial Conditions:

Tubing - Rate: ~~1000 #~~ Pressure: 1000 # psi

Casing/Tubing Annulus - Pressure: 1200 # psi

Conditions During Test:

Time (Minutes)	Annulus Pressure	Tubing Pressure
0 12:26 pm	<u>1200 #</u>	<u>1000 #</u>
5	_____	_____
10	_____	_____
15	<u>1200 #</u>	<u>1000 #</u>
20	_____	_____
25	_____	_____
30 12:56 pm	<u>1200 #</u>	<u>1000 #</u>

Results: Pass Fail

Conditions After Test:

Tubing Pressure: 1200 # psi

Casing/Tubing Annulus Pressure: 0 # psi

COMMENTS: 1750 # permitted PSI

Mike Ward, Johnny Damron
Operator Representative



Re: Notice of Address Change, Merger and Name Change
Address Change effective **December 2, 2002**
Merger and Name Change effective **December 31, 2002**

Divisions of Oil, Gas, and Mining
Attn: Mr. John Baza
1594 West North Temple,
Suite 1210, P. O. Box 145801
Salt Lake City, UT 84114-5801

Gentlemen:

1. Effective December 2, 2002, Phillips Petroleum Company will close its Englewood, Colorado Rocky Mountain Region office. After that time, all correspondence, notices and invoice for Land related matters should be directed to the address(es) noted below. Note that until December 31, 2002, all properties in which Phillips held an interest will continue to be operated by Phillips Petroleum Company, a wholly-owned subsidiary of ConocoPhillips.

2. On December 31, 2002, Phillips Petroleum Company and Conoco Inc. will merge, and the surviving corporation will be renamed "ConocoPhillips Company".

In accordance with the notice provisions of the Operating Agreements and other agreements, if any, between our companies, please adjust your company/organization records, effective for address purposes as of December 2, 2002, and for company name purposes, as of January 1, 2003, to reflect the following information for addressing and delivery of notices, invoicing and payment, and communications with ConocoPhillips Company. This will also apply to Lease Sale notices and other lease-related correspondence and notifications.

U.S. Mail Address:

ConocoPhillips Company
P.O. Box 2197
Houston, Texas 77252
Attn: Chief Landman,
San Juan/Rockies

Physical Address & Overnight Delivery:

ConocoPhillips Company
550 Westlake Park Blvd.
Three Westlake Park
3WL, Room WL 9000
Houston, Texas 77079
Attn: Chief Landman,
San Juan/Rockies

All ballots and official notices/responses sent by facsimile transmission should be sent to the following contact:

Attn: Chief Landman,
San Juan/Rockies

Fax No.: 832-486-2688 or
832-486-2687

Please contact the undersigned immediately if you have any questions. This notice does not apply to royalty inquiries, joint interest billings, or revenue remittances. Please continue to use the same addresses you are currently using for these matters

Sincerely,

William Rainbat

RECEIVED

DEC 02 2002

DIVISION OF
OIL, GAS AND MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

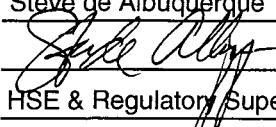
UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number See Attached List	API Number See List
Location of Well Footage: See Attached List County: QQ, Section, Township, Range: State: UTAH	Field or Unit Name Lease Designation and Number

EFFECTIVE DATE OF TRANSFER: 1/1/2003

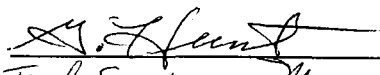
CURRENT OPERATOR

Company: Phillips Petroleum Company
Address: 980 Plaza Office
city Bartlesville state OK zip 74004
Phone: (918) 661-4415
Name: Steve de Albuquerque
Signature: 
Title: HSE & Regulatory Supervisor
Date: 12/30/2002
Comments: Conoco Inc. and Phillips Petroleum Company merged to form ConocoPhillips Company. Please see attached list of wells effected by name change.

NEW OPERATOR

Company: ConocoPhillips Company
Address: P. O. Box 2197, WL3 4066
city Houston state TX zip 77252
Phone: (832) 486-2329
Name: Yolanda Perez
Signature: 
Title: Sr. Regulatory Analyst
Date: 12/30/2002
Comments: Conoco Inc. and Phillips Petroleum Company merged to form ConocoPhillips Company. Please see attached list of wells effected by name change.

(This space for State use only)

Transfer approved by: 
Title: Tech. Services Manager

Approval Date: 2-3-03

Comments: D5, D2 + D3 are due for MIT.

RECEIVED

JAN 08 2003

DIV. OF OIL, GAS & MINING

UIC Well List

SWD WELLS							
api	well_name	section	township	range	well_type	well_status	lease_type
4300730093	ARCADIA-TELONIS 1 (D-2)	19	140S	090E	WD	A	FEE
4301530356	D-11	13	160S	090E	WD	A	FEDERAL
4300730040	DRUNKARDS WASH 31-1 (D-1)	31	140S	100E	WD	A	STATE
4300730351	FAUSETT D5	16	140S	090E	WD	A	FEE
4301530531	PPCO D13	30	160S	090E	WD	DRL	FEE
4300730520	RGC D-10	28	150S	090E	WD	A	FEE
4300730567	SAMPINOS D-14	16	150S	100E	WD	A	FEE
4300730100	USA D6	34	140S	090E	WD	A	FEDERAL
4300730819	UTAH D15	34	130S	090E	WD	APD	STATE
4300730290	UTAH D-3	18	150S	100E	WD	A	STATE
4300730314	UTAH D-4	24	140S	090E	WD	A	STATE
4301530338	UTAH D7	02	160S	090E	WD	A	STATE
4300730431	UTAH D8	12	150S	090E	WD	A	STATE
4300730438	UTAH D-9	32	140S	090E	WD	A	STATE
4300730199	UTAH M-1	26	140S	090E	TW	A	STATE
4300730066	UTAH M-2	34	150S	090E	TW	A	FEDERAL

RECEIVED

JAN 08 2003

DIV. OF OIL, GAS & MINING

List of Produced Water Ponds/Pits

	Permit/ License No.	State/Federal		Immediate Name Change Required		Other Immediate Actions Required*		Agency	Agency Contact Name	Agency Contact Number
		S	F	Y	N	Y	N			
1	EVAPORATION POND	X		X				Utah Dept of Natural Resources, Dept. of Oil Gas and Mining	Gil Hunt	(801) 538-5340
2	D-1 POND	X		X				Utah Dept of Natural Resources, Dept. of Oil Gas and Mining	Gil Hunt	(801) 538-5340
3	D-2 (C-2) POND	X		X				Utah Dept of Natural Resources, Dept. of Oil Gas and Mining	Gil Hunt	(801) 538-5340
4	D-3 POND	X		X				Utah Dept of Natural Resources, Dept. of Oil Gas and Mining	Gil Hunt	(801) 538-5340
* Describe: OPERATIONAL PERMITS FOR PRODUCED WATER PONDS										

RECEIVED

JAN 08 2003

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL

OIL WELL ☐

GAS WELL ☐

OTHER All

2. NAME OF OPERATOR:

Phillips Petroleum Company

3. ADDRESS OF OPERATOR:

980 Plaza Office

CITY Bartlesville

STATE OK

ZIP 74004

PHONE NUMBER:

(918) 661-4415

4. LOCATION OF WELL

FOOTAGES AT SURFACE: See Attached List

COUNTY:

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE:

UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

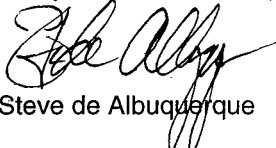
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

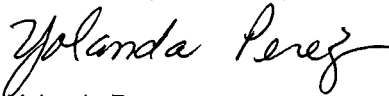
Conoco Inc. was merged into Phillips Petroleum Company, the surviving corporation, on December 31, 2002. In connection with this merger and effective on the same date, the name of the surviving corporation was changed to "ConocoPhillips Company". We are requesting that a new Operator Number be assigned to ConocoPhillips Company.

Please send production reporting forms to Herb Henderson at ConocoPhillips Company, 315 S. Johnstone, 980 Plaza Office, Bartlesville, OK 74004. Herb's phone number is 918-661-4415.

Current Operator
Phillips Petroleum Company


Steve de Albuquerque

New Operator
ConocoPhillips Company


Yolanda Perez

RECEIVED

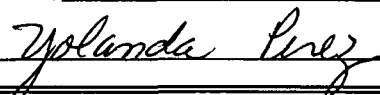
JAN 08 2003

DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) Yolanda Perez

TITLE Sr. Regulatory Analyst

SIGNATURE



DATE

12/30/2002

(This space for State use only)



SECRETARY'S CERTIFICATE

I, the undersigned, Jennifer M. Garcia, Assistant Secretary of ConocoPhillips Company, formerly Phillips Petroleum Company, organized and existing under and by virtue of the laws of the State of Delaware (the "Corporation"), hereby certify that:

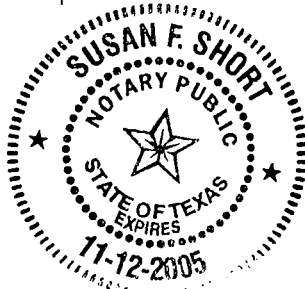
1. As Assistant Secretary I am authorized to execute this certificate on behalf of the Corporation.
2. The attached photocopy of the Certificate of Amendment to the Restated Certificate of Incorporation of Phillips Petroleum Company (to be renamed ConocoPhillips Company) is a true and correct copy as filed in the office of the Secretary of State of Delaware on the 12th day of December 2002, with an effective date of January 1, 2003 and such Certificate of Amendment has not been modified, amended, rescinded or revoked and is in full force and effect as of the date hereof.
3. The attached photocopy of the Certificate of Merger of Conoco Inc. with and into ConocoPhillips Company is a true and correct copy as filed in the office of the Secretary of State of Delaware on the 12th day of December 2002, with an effective date of December 31, 2002 and such Certificate of Merger has not been modified, amended, rescinded or revoked and is in full force and effect as of the date hereof.

IN WITNESS WHEREOF, I have hereunto set my hand as Assistant Secretary and affixed the corporate seal of the Corporation this 7th day of January 2003.


Assistant Secretary
ConocoPhillips Company

STATE OF TEXAS §
 §
COUNTY OF HARRIS §

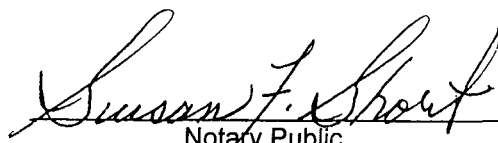
This instrument was acknowledged before me on January 7, 2003, by Jennifer M. Garcia, Assistant Secretary of ConocoPhillips Company, a Delaware corporation, on behalf of said Corporation.



RECEIVED

JAN 08 2003

DIV. OF OIL, GAS & MINING


Notary Public

Delaware

PAGE 1

The First State

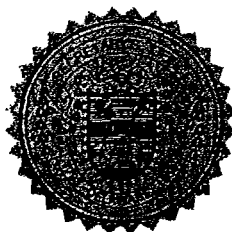
I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "PHILLIPS PETROLEUM COMPANY", CHANGING ITS NAME FROM "PHILLIPS PETROLEUM COMPANY" TO "CONOCOPHILLIPS COMPANY", FILED IN THIS OFFICE ON THE TWELFTH DAY OF DECEMBER, A.D. 2002, AT 1:41 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF AMENDMENT IS THE THIRTY-FIRST DAY OF DECEMBER, A.D. 2002, AT 11 O'CLOCK P.M.

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DIV. OF OIL, GAS & MINING



0064324 8100

030002793

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 2183360

DATE: 01-02-03

CERTIFICATE OF AMENDMENT
to the
RESTATED CERTIFICATE OF INCORPORATION
of

PHILLIPS PETROLEUM COMPANY
(to be renamed ConocoPhillips Company)

Phillips Petroleum Company ("Phillips"), a corporation organized and existing under the General Corporation Law of the State of Delaware (the "DGCL"), hereby certifies that:

1. The amendments to Phillips' Restated Certificate of Incorporation set forth below were duly adopted in accordance with the provisions of Section 242 of the DGCL and have been consented to in writing by the sole stockholder of Phillips in accordance with Section 228 of the DGCL.

2. Phillips' Restated Certificate of Incorporation is hereby amended by deleting Article I thereof and replacing in lieu thereof a new Article I reading in its entirety as follows:

"The name of the corporation (which is hereinafter referred to as the "Corporation") is ConocoPhillips Company."

3. Phillips' Restated Certificate of Incorporation is hereby amended by deleting Section 1 of Article IV thereof and replacing in lieu thereof a new Section 1 reading in its entirety as follows:

"Section 1. The Corporation shall be authorized to issue 2,100 shares of capital stock, of which 2,100 shares shall be shares of Common Stock, \$.01 par value ("Common Stock")."

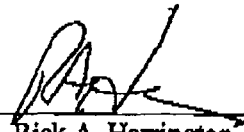
4. Pursuant to Section 103(d) of the DGCL, this amendment will become effective at 11:00 p.m., Eastern time, on December 31, 2002.

FROM RL&F#1

(THU) 12.12'02 13:32/ST. 13:31/NO. 4864756279 P 6

IN WITNESS WHEREOF, Phillips has caused this certificate to be executed this
12th day of December, 2002.

PHILLIPS PETROLEUM COMPANY

By: 
Name: Rick A. Harrington
Title: Senior Vice President, Legal,
and General Counsel

HOU03:884504.1

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JAN 08 2003
DIV. OF OIL, GAS & MINING

Delaware

PAGE 1

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"CONOCO INC.", A DELAWARE CORPORATION,

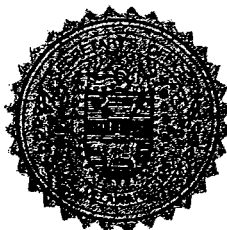
WITH AND INTO "CONOCOPHILLIPS COMPANY" UNDER THE NAME OF "CONOCOPHILLIPS COMPANY", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWELFTH DAY OF DECEMBER, A.D. 2002, AT 1:44 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF MERGER IS THE THIRTY-FIRST DAY OF DECEMBER, A.D. 2002, AT 11:59 O'CLOCK P.M.

RECEIVED

JAN 08 2003

DIV. OF OIL, GAS & MINING



0064324 8100M

030002793

Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 2183370

DATE: 01-02-03

(THU) 12.12'02 13:35/ST. 13

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 01:44 PM 12/12/2002
020763253 - 0064324

CERTIFICATE OF MERGER

of

Conoco Inc.
(a Delaware corporation)

with and into

ConocoPhillips Company
(a Delaware corporation)

Phillips Petroleum Company, a Delaware corporation to be renamed ConocoPhillips Company prior to the effective time of this certificate of merger (the "Surviving Corporation"), in compliance with the requirements of the General Corporation Law of the State of Delaware (the "DGCL") and desiring to effect a merger of Conoco Inc., a Delaware corporation formerly incorporated under the name Du Pont Holdings, Inc. (the "Merging Corporation" and together with the Surviving Corporation, the "Constituent Corporations"), with and into the Surviving Corporation, and acting by its duly authorized officer, DOES HEREBY CERTIFY that:

First: As of the date hereof, the name and state of incorporation of each of the Constituent Corporations of the merger are as follows:

<u>NAME</u>	<u>STATE OF INCORPORATION</u>
PHILLIPS PETROLEUM COMPANY	Delaware
CONOCO INC.	Delaware

Second: An agreement and plan of merger has been approved, adopted, certified, executed and acknowledged by each of the Constituent Corporations in accordance with the requirements of Section 251 of the DGCL;

Third: The name of the Surviving Corporation will be ConocoPhillips Company;

Fourth: The Certificate of Incorporation of ConocoPhillips Company immediately prior to the merger shall be the Certificate of Incorporation of the Surviving Corporation until such time as it may be amended in accordance with applicable law and the provisions thereof;

Fifth: The executed agreement and plan of merger is on file at an office of the Surviving Corporation, the address of which is 600 North Dairy Ashford, Houston, Texas 77079;

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DIV. OF OIL, GAS & MINING

Sixth: A copy of the agreement and plan of merger will be furnished by the Surviving Corporation, on request and without cost, to any stockholder of any Constituent Corporation; and

Seventh: Pursuant to Section 103(d) of the DGCL, this certificate of merger will become effective at 11:59 p.m., Eastern time, on December 31, 2002.

Dated: December 12, 2002

PHILLIPS PETROLEUM COMPANY
(a Delaware corporation)

By: 

Name: Rick A. Harrington

Title: Senior Vice President, Legal,
and General Counsel

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JAN 08 2003

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF COMMERCE
REGISTRATION

CONOCOPHILLIPS COMPANY

EFFECTIVE
06/14/1946

EXPIRATION
*RENEWAL

REFERENCE NUMBER(S), CLASSIFICATION(S) & DETAIL(S)

Corporation - Foreign - Profit
562960-0143

UNITED STATES CORP CO
CONOCOPHILLIPS COMPANY
GATEWAY TOWER EAST STE 900
10 EAST SOUTH TEMPLE
SLC UT 84133

RECEIVED

JAN 08 2003

DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF COMMERCE
DIVISION OF CORPORATIONS & COMMERCIAL CODE
REGISTRATION

EFFECTIVE DATE: 06/14/1946
EXPIRATION DATE: *RENEWAL
ISSUED TO: CONOCOPHILLIPS COMPANY



REFERENCE NUMBER(S), CLASSIFICATION(S) & DETAIL(S)

562960-0143 Corporation - Foreign - Profit

*RENEWAL

You will need to renew your registration each anniversary date of the effective date.

Exceptions: DBAs and Business Trusts renew every three (3) years from the effective date.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Eastern States Office
7450 Boston Boulevard
Springfield, Virginia 22153

IN REPLY REFER TO
3106.8(932.34)WF

January 16, 2003

NOTICE

ConocoPhillips Company	:	Oil & Gas Leases
P.O. Box 7500	:	
Bartlesville, Oklahoma 74005	:	

Merger/Name Change Recognized

Acceptable evidence was received in this office on January 14, 2003, concerning the change of name of Phillips Petroleum Company to **ConocoPhillips Company** and the merger of **Conoco Incorporated** into **ConocoPhillips Company** on Federal oil and gas leases, with **ConocoPhillips Company** being the surviving entity.

The Secretary of the State of Delaware certified the effective date of this merger effective December 31, 2002.

The oil and gas lease files identified on the enclosed exhibit have been noted to the merger. The exhibit was compiled from a list of leases obtained from your list of leases. Eastern States has not abstracted the lease files to determine if the entities affected by this merger hold an interest in the leases identified nor have we attempted to identify leases where the entities are the operator on the ground maintaining no vested record title or operating rights interest. We are notifying the Minerals Management Service and all applicable Bureau of Land Management offices of this merger and name change by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

If you identify other leases in which the merging entity maintain an interest, please contact this office and we will appropriately document those files with a copy of this Notice.

By Operation of law the name of the principal on Nationwide Oil and Gas Bond held by Conoco Incorporated (ES0085) has been changed to ConocoPhillips Company.

If you have any questions, please contact Bill Forbes at 703-440-1536.

S/ Wilbert B. Forbes

Wilbert B. Forbes
Land Law Examiner
Branch of Use Authorization
Division of Resources Planning, Use
and Protection

cc: JFO, BLM State Offices, MMS, ES RF, 930 RF, ES-932:
Bforbes:wbf:01/16/03:440-1536/ConocoPhillips Co

OPERATOR CHANGE WORKSHEET

ROUTING

1. GLH	<input checked="" type="checkbox"/>
2. CDW	
3. FILE	

Change of Operator (Well Sold)

Designation of Agent/Operator

Operator Name Change

X MergerThe operator of the well(s) listed below has changed, effective: **12-31-02**

FROM: (Old Operator):	TO: (New Operator):
PHILLIPS PETROLEUM COMPANY	CONOCOPHILLIPS COMPANY
Address: 980 Plaza Office	Address: P O BOX 2197, WL3 4066
Bartlesville, OK 74004	HOUSTON, TX 77252
Phone: 1-(918)-661-4415	Phone: 1-(832)-486-2329
Account No. N1475	Account No. N2335

CA No.

Unit:

WELL(S)

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
UTAH D-15	34-13S-09E	43-007-30819	99999	STATE	SWD	APD
FAUSETT D-5	16-14S-09E	43-007-30351	12165	FEE	SWD	A
ARCADIA-TELONIS 1 (D-2)	19-14S-09E	43-007-30093	99990	FEE	SWD	A
UTAH D-4	24-14S-09E	43-007-30314	11256	STATE	SWD	A
UTAH M-1	26-14S-09E	43-007-30199	11256	STATE	TW	A
UTAH D-9	32-14S-09E	43-007-30438	12771	STATE	SWD	A
USA D-6	34-14S-09E	43-007-30100	12466	FEDERAL	SWD	A
UTAH D-8	12-15S-09E	43-007-30431	11256	STATE	SWD	A
RGC D-10	28-15S-09E	43-007-30520	12545	FEE	SWD	A
UTAH M-2	34-15S-09E	43-007-30066	2889	FEDERAL	TW	A
DRUNKARDS WASH 31-1 (D-1)	31-14S-10E	43-007-30040	11256	STATE	SWD	A
SAMPINOS D-14	16-15S-10E	43-007-30567	12729	FEE	SWD	A
UTAH D-3	18-15S-10E	43-007-30290	11256	STATE	SWD	A
UTAH D-7	02-16S-09E	43-015-30338	12404	STATE	SWD	A
D-11	13-16S-09E	43-015-30356	12572	FEDERAL	SWD	A
PPCO D13	30-16S-09E	43-015-30531	99999	FEE	SWD	DRL

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 01/08/2003
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 01/08/2003
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 02/03/2003
4. Is the new operator registered in the State of Utah: YES Business Number: 562960-0143
5. If **NO**, the operator was contacted on: _____

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: 01/14/2003

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: 01/14/2003

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: 01/14/2003

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 02/04/2003

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database** on: 02/03/2003
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 02/03/2003
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: 8140-60-24

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: 8015-16-69

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: N/A

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 6196922
2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

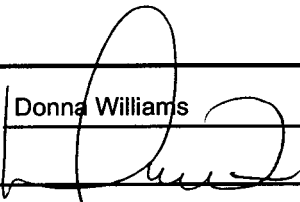
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Water Disposal</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-38666
2. NAME OF OPERATOR: ConocoPhillips Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
3. ADDRESS OF OPERATOR: P. O. Box 51810 CITY Midland STATE TX ZIP 79710-1810		7. UNIT or CA AGREEMENT NAME: UTU-67921X
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1600' FSL & 1126' FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSW 18 15S 10E		8. WELL NAME and NUMBER: Utah D-3
PHONE NUMBER: (432) 688-6943		9. API NUMBER: 4300730290
COUNTY: Carbon		10. FIELD AND POOL, OR WILDCAT: Drunkards Wash
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>4/1/07</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Install tbq</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

ConocoPhillips Company respectfully requests that the attached procedure to install a 3 1/2" tbq string inside the 7" production csg be approved. The procedure is submitted to meet the requirement that a tubing string be inside a casing string to protect shallow water contamination from casing leaks.

NAME (PLEASE PRINT) <u>Donna Williams</u>	TITLE <u>Sr. Regulatory Analyst</u>
SIGNATURE 	DATE <u>2/5/2007</u>

(This space for State use only)

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

(5/2000)

DATE: 2/14/07

(See Instructions on Reverse Side)

BY: [Signature]

* Contact Mark Jones w/ Doug prior to conducting MIT

RECEIVED

FEB 12 2007

DIV. OF OIL, GAS & MINING



**Drunkard's Wash Utah D-3 SWD) Well
Install Tubing Procedure**

Revised Friday, February 02, 2007

Location: 1600' FSL & 1126' FWL (NWSW), Sec. 18, T15S, R10E Carbon, Utah
Spud Date: 2/27/1996
API Number: 43-007-30290

Original TD: 6,510'
Packer Depth: 7" Arrow-Pak Wireline Set Tubing Retrievable Packer set @ 5,508' (Below pkr. 1,3 1/2" tubing sub, 3 1/2" X Nipple, 1, 3 1/2" tubing sub, XN Nipple) See wellbore sketch.

TOC: Surface (Circulated cement to surface).
KBE: 5707'
GLE: 5691'
KBM: 16' above GL

Tubulars

Csg/Tubing Size (in)	Depth (ft)	Wt (lb/ft)	Grade	Drift ID	Burst (psi)	Coll * (psi)
13-3/8	0 - 526'	48	H-40			
9-5/8	0 - 3718'	40	K-55			
7	0 - 6491'	26	J-55	6.151	4980	4320

Project Overview:

The intent of this procedure will be to install a tubing string in the D-3 active SWD well, as required by the State of Utah Department of Natural Resources. Currently the well is an active SWD well with disposal water being injected via 7" casing. Within recent years the State of Utah has required water injection & disposal be contained within a tubing string inside a casing string to protect shallow water contamination from casing leaks.

In April, 1996 the D-3 well was converted to a Navajo (5561' to 5896') & Wingate Sandstone (5997' to 6058') formation SWD well. The D-3 SWD well serves as the water disposal well for the Drunkard Wash field and disposes of approximately 2,000 bbls per day of produced water from the Ferron formation.

Currently the well has a 7" permanent packer set at 5,508' with 3 1/2" tubing subs and a X and XN profile nipples below. This procedure will consist of rigging up and running 5,500 of 3 1/2" tubing, landing into the existing packer, performing a MIT test and placing back on injection.

This project is considered as non-discretionary as it is required by the State of Utah for continued operation.

Existing Perforations:

Navajo: 5561-5602, 5566-5567', 5619-27', 5635-47', 5663-5728', 5736-63', 5784-5872', 5888-5896'

Wingate Sandstone 5997-6029', 6030-6040', 6041-6058'

Well Control Requirements:

Well Control: Well Control equipment and procedures will be in accordance with the ConocoPhillips Well Control Manual, Second Edition, Revision Two, dated August 1994.

Well Category: The D-2 SWD well is expected to be dead once the well is shut-in. If required the well will be flowed back or killed with 10 ppg kill weight fluid. Since this is a SWD well and is not expected to flow at any time during the operation, this well is to be considered a **Category 1** well.

BOPE Class 2: Standard procedures for the area requires a Class 2 or Hydraulic operated BOP stack. The actual stack will consist of a hydraulic operated 5M PSIG BOP stack with 3 ½" tubing rams on top and blinds below. NU shop tested BOP stack on top of companion flange. Test as per SOP.

Workover Fluid: Use treated 10.0 ppg brine water for duration of operations. Use dynamic head kill procedure if required to maintain control of the well during tripping and installation / removal of BOP's.

Note: All depths referenced to 16' RKB.

Procedure

Notify the State of Utah representatives a minimum of 24 hours prior to moving in to inform them of ConocoPhillips plans and timing.

1. Shut the well in and allow the well to bleed off surface pressure. Load casing with 10 ppg brine water if required. Lay bleed line from tubing head to frac tank or steel lined pit. Leave bleed line open while installing BOP stack.
 2. MIRU workover rig. Insure well is dead prior to removing wellhead. Install a minimum of a 5,000 PSI WP BOP with 3 ½" pipe rams on top and blinds on bottom. Test BOP as per SOP.
 3. PU and TIH with Weatherford Completion Systems seal stack assembly on approximately 5,508' of 3 ½", 9.2 ppf, J-55 tubing. See attached sketch.
 4. Latch into the 7" packer at 5,508'. Load the casing and test to 500 PSIG for 15 minutes.
 5. Release from the packer, PU and space out. RU pump truck and pump packer fluid via casing.
 6. Drop down and latch onto the packer. Install tubing hanger and land tubing. ND the BOP stack and re-install existing injection wellhead valves. RD pulling unit.
 7. Perform MIT test as per State requirements.
-

Drunkards Wash Emergency Contact Information

Utah D-3 SWD: Location: GPS Coordinates: 513009 E, 4374074 N

DIAL 911 for all emergency services

<u>ConocoPhillips</u>	Office:	<u>(435) 613-9777</u>	Fax:	<u>(434) 613-9782</u>
Jim Weaver	Operations Superintendent	<u>820-6379</u>	cell	
Jeff Sandoval	Health / Safety / Environment	<u>820-6576</u>	cell	
Russell Getman	Southern Operations Supervisor	<u>820-8524</u>	Cell	
Steve Lessar	Northern Operations Supervisor	<u>636-5027</u>	cell	
Colby Guest	Project and operations lead	<u>636-6888</u>	cell	
Mike Greenan	Project and operations lead	<u>820-8325</u>	cell	

Contractors

Weatherford Oil Tools	Office	<u>(435) 789-7121</u>
<u>Tracy Nielson</u>	cell	<u>(435) 828-7794</u>
Nelco Construction	Office	<u>(435) 637-3495</u>
<u>Garth</u>	cell	<u>(435) 636-7000</u>
Noyes Trucking	Office	<u>(435) 613-0430</u>
<u>Wes Noyes</u>	cell	<u>(435) 820-8832</u>
Graco tool rental	Office	<u>(435) 789-6804</u>
<u>Lowell Aycock</u>	cell	<u>(435) 790-0745</u>
Rain for Rent Tanks	Office	<u>(801) 292-9996</u>
<u>Lin Bell</u>	cell	<u>(801) 541-1661</u>
Halliburton	Office	<u>(435) 789-2550</u>
<u>Barry Winter</u>	Office	
Basic Energy/Energy Air	Office	<u>(970) 241-6029</u>
<u>Mike Sexton</u>	Cell	<u>(970) 260-3856</u>
<u>Bob Delong</u>	Cell	<u>(970) 858-7826</u>
Wood's Group Wellhead, <u>Garth George</u>	Cell	<u>(435) 828-2598</u>
Waste Logistics,	Office	<u>(435) 472-2580</u>
<u>Jesse Mccourt</u>	Cell	<u>(435) 636-5422</u>

INJECTION WELL - PRESSURE TEST

Well Name: <u>Utah D-3</u>	API Number: <u>4300730290</u>
Qtr/Qtr: <u>NWSEW</u> Section: <u>18</u>	Township: <u>15S</u> Range: <u>10E</u>
Company Name: <u>Conoco Phillips Co.</u>	
Lease: State <u>X</u> Fee _____	Federal _____ Indian _____
Inspector: <u>M. O'Brien</u>	Date: <u>5/3/07</u>

Initial Conditions:

Tubing - Rate: 0 Pressure: 0 psi
 Casing/Tubing Annulus - Pressure: 0 psi

Conditions During Test:

Time (Minutes)	Annulus Pressure	Tubing Pressure
0	<u>1000 #</u>	<u>0 #</u>
5	_____	_____
10	_____	_____
15	<u>1000 #</u>	<u>0 #</u>
20	_____	_____
25	_____	_____
30	<u>1000 #</u>	<u>0 #</u>

Results: Pass Fail

Conditions After Test:

Tubing Pressure: 0 psi
 Casing/Tubing Annulus Pressure: 0 psi

COMMENTS: Packer and tubing installed in wellbore.
Packer @ 5523'. Tested w/ a wireline set plug
in XN nipple below Packer.

Operator Representative

RECEIVED
 MAY 14 2007
 DIV. OF OIL, GAS & MINING

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER Water Disposal

2. NAME OF OPERATOR:
ConocoPhillips Company

3. ADDRESS OF OPERATOR: P.O. Box 51810 CITY Midland STATE TX ZIP 79710-1810 PHONE NUMBER: (432) 688-6943

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1600' FSL & 1126' FWL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSW 18 15S 10E

STATE: UTAH

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML-38666

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
N/A

7. UNIT or CA AGREEMENT NAME:
UTU-67921X

8. WELL NAME and NUMBER:
Utah D-3

9. API NUMBER:
4300730290

10. FIELD AND POOL, OR WILDCAT:
Drunkards Wash

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON	
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE	
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: <u>5/3/2007</u>	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL	
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Install tbq, MIT</u>	
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION		

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

5/1/07: SIRU. Hook up hard line to pit, SICP 824#. Monitor flowing water for H2S. No sign. Flow well back to 46#. Shut well in, build up to 700#.

5/2/07: ND WH to master valve, rig up wireline. PU 2.75 XN nipple. RIH w/wireline, tag packer, set plug in XN nipple. POOH w/wireline. Open well to pit. Well bled off. RD wireline. ND master valve, NU new tbq spool. NU BOP, RU floor, PU seal assembly and TIH w/3.5" tbq. Sting into packer @ 5520'. Fill hole, test to 1000# for 15 minutes. Sting out of packer, circ packer fluid, space out tbq and land at 5520'.

5/3/07: ND BOP, NU WH, Rig down. Perform successful MIT, 1000# for 30 minutes. Test witnessed by DOGM.

NAME (PLEASE PRINT) Donna Williams

TITLE Sr. Regulatory Specialist

SIGNATURE [Signature]

DATE 5/10/2007

(This space for State use only)

RECEIVED

MAY 15 2007

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Disposal Well</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML38666
2. NAME OF OPERATOR: ConocoPhillips Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
3. ADDRESS OF OPERATOR: P.O. Box 51810 CITY Midland STATE Tx ZIP 79710		7. UNIT or CA AGREEMENT NAME: Drunkards Wash
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1600 FSL & 1126 FWL		8. WELL NAME and NUMBER: Utah D-3
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSW 18 15S 10E		9. API NUMBER: 4300730290
COUNTY: Carbon		10. FIELD AND POOL, OR WILDCAT: Drunkards Wash
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>7/1/2008</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Add Formation</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

ConocoPhillips Company respectfully request to add the Dakota formation to the disposal authorization. We are currently in the process of recompleting the D8 to a Dakota well. The Dakota formation is a unitized formation of the Drunkards Wash Unit. Please find attached a water analysis of the Dakota formation for review.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 07-22-08
By: [Signature]

NAME (PLEASE PRINT) Donna Williams TITLE Sr. Regulatory Specialist
SIGNATURE [Signature] DATE 6/26/2008

(This space for State use only)

COPY SENT TO OPERATOR

Date: 7-23-2008

Initials: KS

(5/2000)

(See Instructions on Reverse Side)

RECEIVED
JUN 27 2008

DIV. OF OIL, GAS & MINING



Water Analysis Report

Customer : ConocoPhillips

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

Comments : CO2 at default value. 1ST RUN

CATIONS

Calcium : 182 mg/l
Magnesium : 42 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 4.0 mg/l
Manganese : mg/l
Sodium : 14997 mg/l

ANIONS

Chloride : 22,540 mg/l
Carbonate : 0 mg/l
Bicarbonate : 1,022 mg/l
Sulfate : 590 mg/l

pH (field) :	7.00	CO2 in Water :	300 mg/l
Temperature :	85 degrees F	CO2 in Gas :	0.03 mole %
Specific Gravity :	1.030 grams/ml	H2S in Water :	mg/l
TDS :	39,377 ppm	Dissolved Oxygen :	ppm
Ionic Strength :	0.66	Resistivity :	ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-1.18	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-1.02	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-0.81	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-0.59	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	-0.37	Calcite PTB @ 160 F :	N/A
Calcite (CaCO3) SI @ 180 F :	-0.14	Calcite PTB @ 180 F :	N/A
Calcite (CaCO3) SI @ 200 F :	0.10	Calcite PTB @ 200 F :	22.4
Gypsum (CaSO4) SI :	-1.75	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Confidential

Champion Technologies, Inc.
Vernal District Technical Services



Water Analysis Report

Customer : ConocoPhillips

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

Comments : CO2 at default value. 3RD RUN

CATIONS

Calcium : 266 mg/l
Magnesium : 13 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 2.0 mg/l
Manganese : mg/l
Sodium : 17595 mg/l

ANIONS

Chloride : 26,760 mg/l
Carbonate : 0 mg/l
Bicarbonate : 749 mg/l
Sulfate : 603 mg/l

pH (field) : 7.00
Temperature : 85 degrees F
Specific Gravity : 1.035 grams/ml
TDS : 45,988 ppm
Ionic Strength : 0.78

CO2 in Water : 300 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : mg/l
Dissolved Oxygen : ppm
Resistivity : ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-1.36	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-1.20	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-0.99	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-0.78	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	-0.55	Calcite PTB @ 160 F :	N/A
Calcite (CaCO3) SI @ 180 F :	-0.32	Calcite PTB @ 180 F :	N/A
Calcite (CaCO3) SI @ 200 F :	-0.08	Calcite PTB @ 200 F :	N/A
Gypsum (CaSO4) SI :	-1.62	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

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Champion Technologies, Inc.
Vernal District Technical Services



Water Analysis Report

Customer : ConocoPhillips

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

Comments : CO2 at default value. 8TH RUN

CATIONS

Calcium : 200 mg/l
Magnesium : 61 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 1.0 mg/l
Manganese : mg/l
Sodium : 17672 mg/l

ANIONS

Chloride : 27,100 mg/l
Carbonate : 0 mg/l
Bicarbonate : 368 mg/l
Sulfate : 633 mg/l

pH (field) : 7.00
Temperature : 85 degrees F
Specific Gravity : 1.035 grams/ml
TDS : 46,035 ppm
Ionic Strength : 0.78

CO2 in Water : 300 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : mg/l
Dissolved Oxygen : ppm
Resistivity : ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-2.10	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-1.95	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-1.73	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-1.52	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	-1.29	Calcite PTB @ 160 F :	N/A
Calcite (CaCO3) SI @ 180 F :	-1.06	Calcite PTB @ 180 F :	N/A
Calcite (CaCO3) SI @ 200 F :	-0.82	Calcite PTB @ 200 F :	N/A
Gypsum (CaSO4) SI :	-1.73	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

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Champion Technologies, Inc.

Vernal District Technical Services



Water Analysis Report

Customer : ConocoPhillips

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

Comments : CO2 at default value, 13TH RUN

CATIONS

Calcium : 255 mg/l
Magnesium : 28 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 2.0 mg/l
Manganese : mg/l
Sodium : 17295 mg/l

ANIONS

Chloride : 26,500 mg/l
Carbonate : 0 mg/l
Bicarbonate : 381 mg/l
Sulfate : 650 mg/l

pH (field) : 7.00
Temperature : 85 degrees F
Specific Gravity : 1.035 grams/ml
TDS : 45,111 ppm
Ionic Strength : 0.77

CO2 in Water : 300 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : mg/l
Dissolved Oxygen : ppm
Resistivity : ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-1.96	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-1.80	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-1.59	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-1.37	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	-1.15	Calcite PTB @ 160 F :	N/A
Calcite (CaCO3) SI @ 180 F :	-0.92	Calcite PTB @ 180 F :	N/A
Calcite (CaCO3) SI @ 200 F :	-0.68	Calcite PTB @ 200 F :	N/A
Gypsum (CaSO4) SI :	-1.61	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Confidential

Champion Technologies, Inc.
Vernal District Technical Services



Water Analysis Report

Customer : ConocoPhillips

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

Comments : CO2 at default value. 14TH RUN

CATIONS

Calcium : 250 mg/l
Magnesium : 91 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 1.0 mg/l
Manganese : mg/l
Sodium : 17888 mg/l

ANIONS

Chloride : 27,680 mg/l
Carbonate : 0 mg/l
Bicarbonate : 320 mg/l
Sulfate : 575 mg/l

pH (field) : 7.00
Temperature : 85 degrees F
Specific Gravity : 1.035 grams/ml
TDS : 46,805 ppm
Ionic Strength : 0.80

CO2 in Water : 300 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : mg/l
Dissolved Oxygen : ppm
Resistivity : ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-2.14	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-1.98	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-1.77	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-1.55	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	-1.33	Calcite PTB @ 160 F :	N/A
Calcite (CaCO3) SI @ 180 F :	-1.10	Calcite PTB @ 180 F :	N/A
Calcite (CaCO3) SI @ 200 F :	-0.86	Calcite PTB @ 200 F :	N/A
Gypsum (CaSO4) SI :	-1.68	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

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Champion Technologies, Inc.
Vernal District Technical Services



Water Analysis Report

Customer : ConocoPhillips

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

Comments : CO2 at default value. 15TH RUN

CATIONS

Calcium : 206 mg/l
Magnesium : 48 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 1.0 mg/l
Manganese : mg/l
Sodium : 18095 mg/l

ANIONS

Chloride : 27,820 mg/l
Carbonate : 0 mg/l
Bicarbonate : 305 mg/l
Sulfate : 555 mg/l

pH (field) : 7.00
Temperature : 85 degrees F
Specific Gravity : 1.035 grams/ml
TDS : 47,030 ppm
Ionic Strength : 0.80

CO2 in Water : 300 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : mg/l
Dissolved Oxygen : ppm
Resistivity : ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-2.26	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-2.11	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-1.90	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-1.68	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	-1.45	Calcite PTB @ 160 F :	N/A
Calcite (CaCO3) SI @ 180 F :	-1.22	Calcite PTB @ 180 F :	N/A
Calcite (CaCO3) SI @ 200 F :	-0.98	Calcite PTB @ 200 F :	N/A
Gypsum (CaSO4) SI :	-1.78	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

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Champion Technologies, Inc.
Vernal District Technical Services



Water Analysis Report

Customer : ConocoPhillips

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

Comments : CO2 at default value. 16TH RUN.

CATIONS

Calcium : 173 mg/l
Magnesium : 25 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 1.0 mg/l
Manganese : mg/l
Sodium : 17996 mg/l

ANIONS

Chloride : 27,540 mg/l
Carbonate : 0 mg/l
Bicarbonate : 283 mg/l
Sulfate : 575 mg/l

pH (field) : 7.00
Temperature : 85 degrees F
Specific Gravity : 1.035 grams/ml
TDS : 46,593 ppm
Ionic Strength : 0.79

CO2 in Water : 300 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : mg/l
Dissolved Oxygen : ppm
Resistivity : ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI :	-2.40	Calcite PTB :	N/A
Calcite (CaCO3) SI @ 100 F :	-2.24	Calcite PTB @ 100 F :	N/A
Calcite (CaCO3) SI @ 120 F :	-2.03	Calcite PTB @ 120 F :	N/A
Calcite (CaCO3) SI @ 140 F :	-1.81	Calcite PTB @ 140 F :	N/A
Calcite (CaCO3) SI @ 160 F :	-1.59	Calcite PTB @ 160 F :	N/A
Calcite (CaCO3) SI @ 180 F :	-1.36	Calcite PTB @ 180 F :	N/A
Calcite (CaCO3) SI @ 200 F :	-1.12	Calcite PTB @ 200 F :	N/A
Gypsum (CaSO4) SI :	-1.83	Gypsum PTB :	N/A
Barite (BaSO4) SI :	N/A	Barite PTB :	N/A
Celestite (SrSO4) SI :	N/A	Celestite PTB :	N/A

Confidential

Champion Technologies, Inc.

Vernal District Technical Services



Water Analysis Report

Customer : ConocoPhillips

Address :

City : Price

State : UT

Postal Code :

Attention :

cc1 :

cc2 :

Comments : CO2 at default value. 17TH RUN.

Date Sampled : 18-Apr-08

Date Reported : 21-Apr-08

Date Received : 21-Apr-08

Field : Drunkards Wash Unit

Lease : Drunkards Wash Unit

Location : D-8 SWD

Sample Point : wellhead

Salesman : Scott Harbison

Analyst : Karen Hawkins Allen

CATIONS

Calcium : 178 mg/l
Magnesium : 30 mg/l
Barium : mg/l
Strontium : mg/l
Iron : 1.0 mg/l
Manganese : mg/l
Sodium : 16988 mg/l

ANIONS

Chloride : 25,980 mg/l
Carbonate : 0 mg/l
Bicarbonate : 312 mg/l
Sulfate : 590 mg/l

pH (field) : 7.00
Temperature : 85 degrees F
Specific Gravity : 1.035 grams/ml
TDS : 44,079 ppm
Ionic Strength : 0.75

CO2 in Water : 300 mg/l
CO2 in Gas : 0.03 mole %
H2S in Water : mg/l
Dissolved Oxygen : ppm
Resistivity : ohm/meters

SI calculations based on Tomson-Oddo parameters

Calcite (CaCO3) SI : -2.28
Calcite (CaCO3) SI @ 100 F : -2.12
Calcite (CaCO3) SI @ 120 F : -1.91
Calcite (CaCO3) SI @ 140 F : -1.69
Calcite (CaCO3) SI @ 160 F : -1.47
Calcite (CaCO3) SI @ 180 F : -1.24
Calcite (CaCO3) SI @ 200 F : -1.00
Gypsum (CaSO4) SI : -1.79
Barite (BaSO4) SI : N/A
Celestite (SrSO4) SI : N/A

Calcite PTB : N/A
Calcite PTB @ 100 F : N/A
Calcite PTB @ 120 F : N/A
Calcite PTB @ 140 F : N/A
Calcite PTB @ 160 F : N/A
Calcite PTB @ 180 F : N/A
Calcite PTB @ 200 F : N/A
Gypsum PTB : N/A
Barite PTB : N/A
Celestite PTB : N/A

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Champion Technologies, Inc.
Vernal District Technical Services

UTAH DIVISION OF OIL, GAS AND MINING
NOTICE OF REPORTING PROBLEMS

Operator: Conocophillips Company Account: N2335 Today's Date: 09/16/2008

Problems:

- ☐ Late Report(s)
☐ Inaccurate Report(s)
☐ Incomplete Report(s)
☒ Other: No Subsequent Reports

Failure to submit reports in a timely, accurate, and complete manner may result in the issuance of a Notice of Violation by the Division of Oil, Gas and Mining, and may result in the Division pursuing enforcement action as outlined in Rule R649-10, Administrative Procedures, and Section 40-6-11 of the Utah Code.

To avoid compliance action, these reporting problems should be resolved within 7 days.

Send reports to:

Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Fax to:

(801) 359-3940

43 007 30290
Utah D3
ISS IDE 18

Type of Report	Month(s) of Problem Report		
<input type="checkbox"/> Production – Form 10 <input type="checkbox"/> Disposition – Form 11 <input type="checkbox"/> Gas Plant – Form 13 <input type="checkbox"/> Enhanced Recovery – UIC Form 2 <input type="checkbox"/> Injection – UIC Form 3 <input type="checkbox"/> Other _____			
Type of Report	Well Name(s)	API Number(s)	Drilling Commenced
<input type="checkbox"/> Spud Notice – Form 9 <input type="checkbox"/> Drilling Reports – Form 9 <input type="checkbox"/> Well Completion Report – Form 8 <input checked="" type="checkbox"/> Other <u>Subsequent Sundry</u>	<input checked="" type="checkbox"/> List Attached		

Description of Problem:

Operator has submitted sundry of intents on the following wells that have been approved by DOGM. Per Rule 649-3-23, a subsequent report shall be submitted on Form 9, Sundry Notice, with in 30 days after completion. The report should show workover results, well status, work completion date, new perforation depths, etc

If you have questions or concerns regarding this matter, please contact Rachel Medina at (801) 538-5260 .

cc: Compliance File
RAM
Well File
CHD

UTAH DIVISION OF OIL, GAS AND MINING

NOTICE OF REPORTING PROBLEMS

ATTACHMENT

Operator: Conocophillips Company Account: N2335 Today's Date: 09/16/2008

[illegible]

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER Disposal Well

2. NAME OF OPERATOR:
ConocoPhillips Company

3. ADDRESS OF OPERATOR:
P.O. Box 51810 CITY Midland STATE Tx ZIP 79710

PHONE NUMBER:
(432) 688-6943

5. LEASE DESIGNATION AND SERIAL NUMBER:
ML38666

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
N/A

7. UNIT or CA AGREEMENT NAME:
Drunkards Wash

8. WELL NAME and NUMBER:
Utah D-3

9. API NUMBER:
4300730290

10. FIELD AND POOL, OR WILDCAT:
Drunkards Wash

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 1600 FSL & 1126 FWL

COUNTY: Carbon

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSW 18 15S 10E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 11/9/2008	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Liner</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Please be advised that the pond liner on the above referenced location was replaced this fall. The work began on or about October 1, 2008 and was completed on November 9, 2008.

NAME (PLEASE PRINT) Donna Williams

TITLE Sr. Regulatory Specialist

SIGNATURE

DATE 12/10/2008

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DEC 11 2008

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Disposal</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 38666
2. NAME OF OPERATOR: ConocoPhillips Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: P.O. Box 51810 CITY Midland STATE Tx ZIP 79710		7. UNIT or CA AGREEMENT NAME: UTU67921X
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1600 FSL & 1126 FWL		8. WELL NAME and NUMBER: Utah D 3
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWSW 18 15S 10E		9. API NUMBER: 4300730290
COUNTY: Carbon		10. FIELD AND POOL, OR WILDCAT: Drunkards Wash
STATE: UTAH		

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: <u>9/22/2009</u>	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Additional Source</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

As per the discussion with Brad Hill w/DOGM on 9/16/2009, ConocoPhillips Company respectfully request the following:

Bill Barrett Corp. is currently making plans to complete in the Manning Canyon the recently drilled State 16H-32-15 12 well. As COP is a 50% owner of this well, we are respectfully requesting to dispose of the flowback fluid (3% KCl + formation water) from the upcoming completion work into the above referenced SWD. This request is a temporary additional source and should occur for no longer than 4 weeks.

Approved by the
Utah Division of
Oil, Gas and Mining

Date: 09-21-09
By: [Signature]

COPY SENT TO OPERATOR

Date: 10-7-2009
Initials: KS

NAME (PLEASE PRINT) Donna Williams TITLE Sr. Regulatory Specialist
SIGNATURE [Signature] DATE 9/17/2009

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SEP 21 2009

DIV. OF OIL, GAS & MINING